

# KV-X21TM

## RM-673

# SERVICE MANUAL

*AEP Model*

*Chassis No. SCC-B14K-A*



# AE-1 CHASSIS

**Note :** The service manual for RM-673 has been issued separately.

### MODELS OF THE SAME SERIES

KV-X21TM	
KV-X25TM	
KV-X25TA	

### SPECIFICATIONS

Television system CCIR L, B/G, I, M, D/K  
 Color system SECAM, PAL, NTSC<sub>3.58</sub>, NTSC<sub>4.43</sub>  
 Stereo system German two-carrier system  
 Channel coverage

Television standard	VHF	UHF
L	02-10	F21-F69
B/G	E2-E12	E21-E68
D/K	R1-R12	R21-R60
M	A2-A13	A14-A69
I	-	B21-B68

Picture tube Trinitron tube  
 100-degree deflection  
 Approx. 54.5 cm (21 inches)  
 (Approx. 51 cm picture measured diagonally)  
 Inputs 21-pin connector : CENELEC standard  
 21-pin connector : RGB input  
 unconnected

Outputs Headphones jack : stereo minijack  
 External speaker terminals : 2-pin DIN  
 Audio output jack : phonojack output  
 level dependent upon TV setting  
 Power consumption 87 Wh  
 Dimensions Approx. 518 × 465 × 475 mm  
 (w/h/d)  
 Weight Approx. 26 kg  
 Supplied accessories RM-673 Remote Commander (1)  
 IEC designation R6 batteries (2)  
 Audio output 10 W + 10 W (music power)

Design and specifications are subject to change without notice.



MC-Service


# TRINITRON® COLOR TV

# SONY®

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
### SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

## SECTION 1 GENERAL



**Note)** The layout, etc., will be slightly different from the operating instructions packed with the units.

### 1-1. FIRST OF ALL

- 1 Connect the aerial to the  socket on the rear of the set.  
This socket receives the standard 75-ohm aerial plug.
- 2 Plug in the set.
- 3 Tune in the available channels.

Use the buttons inside the panel. To open the panel, push the center.

To tune in all channels automatically :




- 1 Press  (preset).  
Press TV to select the available TV system.
- 2 Press PROGR to select the program position from which tuning is to start.
- 3 Press  (auto programing).

The channels will be tuned in and memorized in consecutive positions, beginning from the program position selected in step 2.

When tuning has been completed, the set returns to the position where tuning began.



To tune in a channel in any desired program position.

(e. g. the position which the same number as the channel) :

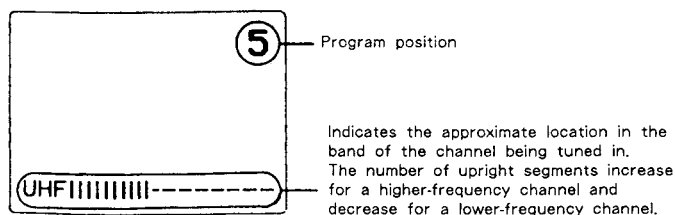
- 1 Press  (preset).
- 2 Press PROGR to select the desired program position.
- 3 Press C (clear).
- 4 Press  (search) repeatedly until the desired channel appears.
- 5 Repeat steps 2 to 4 for all channels, if required.
- 6 Press  (preset) again.

If the set is to be used in an area with poor reception, preset the program numbers between 1 and 19 for TV program use.

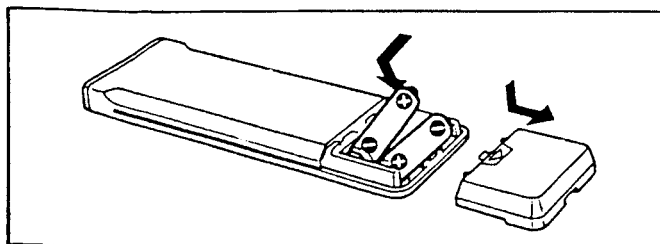
To have the unused program positions skipped when PROGR+ or PROGR- is pressed

- 1 Press  (preset).
- 2 Press PROGR to select the unused position.
- 3 Press C (clear).
- 4 Repeat steps 2 and 3 for all unused position.
- 5 Press  (preset) again.

On-screen display while tuning

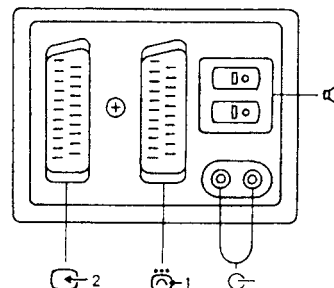


- 4 Insert two R6 batteries checking the correct polarity.



### 1-2. CONNECTING OTHER EQUIPMENT


Connectors on rear set



L/G/S	Left external speaker terminal (2-pin DIN)	Connect to external speakers. The TV speakers will be disconnected.
R/D/D	Right external speaker terminal (2-pin DIN)	speakers 8-16 Ω
R/D/D	Right audio output jack (phono jack)	Connect to audio equipment. When only using the phono-jacks, two loudspeaker plugs, (DIN 41529) should be inserted into the external speaker terminals so that the TV speaker output is switched off.
L/G/S	Left audio output jack (phono jack)	
G-1	21-pin connector (CENELEC standard)	Connect to a VTR micro computer, etc. The picture of the TV channel being received is always output. The picture of G-2 can be watched while recording a TV program with the VTR connected to G-1.
G-2	21-pin connector (without RGB input)	Connect to second VTR. The picture displayed on the screen is always output. The picture of G-1 can be recorded with the VTR connected to G-2 while monitoring the picture.

### VTR operation using the supplied Commander

Remote operation of the VTR (8mm only) is limited to the features and functions of the VTR. For further details, refer to the VTR manual.

When watching a video with the VTR connected to the  connector, set the channel for the video to the program number 0 or any empty channel between 20 and 29.

#### Note

Move the VTR away from the TV, if the picture or sound is distorted.

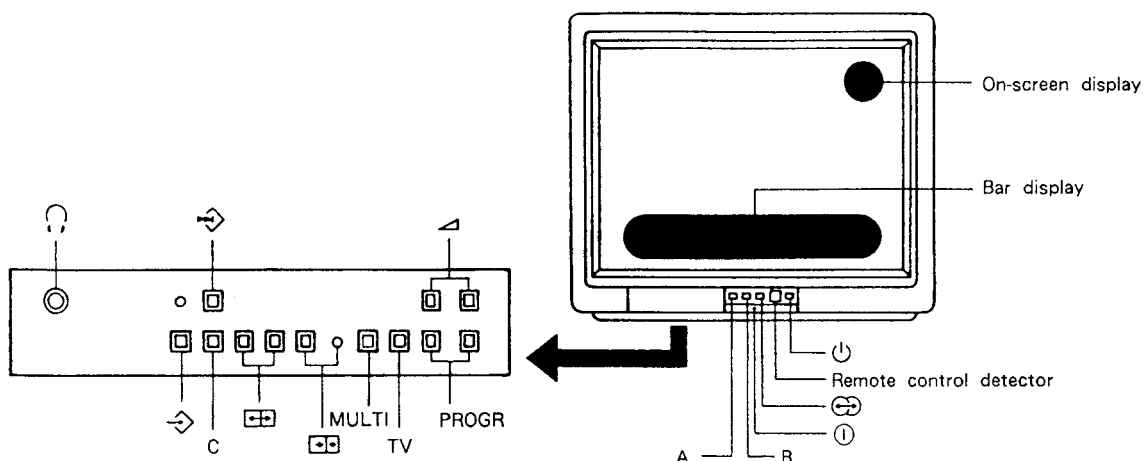
21pin connector (①-1, ②-2)

Pin No.	①-1	②-2	Signal	Signal level
1	○	○	Audio output B (right)	Standard level : 0.5 Vrms Output impedance : Less than 1 k ohm*
2	○	○	Audio input B (right)	Standard level : 0.5 Vrms Input impedance : More than 10 k ohms*
3	○	○	Audio output A (left)	Standard level : 0.5 Vrms Output impedance : Less than 1 k ohm*
4	○	○	Ground (audio)	
5	○	○	Ground (blue)	
6	○	○	Audio input A (left)	Standard level : 0.5 Vrms Input impedance : More than 10 k ohms*
7	○	●	Blue input	0.7 V $\pm$ 2 dB, 75 ohms, positive
8	○	○	Function select (AV control)	High state (9.5–12 V) : Part mode Low state (0–2 V) : TV mode Input impedance : More than 10 k ohms Input capacitance : Less than 2 nF
9	○	○	Ground (green)	
10	○	○	Open	
11	○	●	Green/Green with sync input	Green signal : 0.7 V $\pm$ 2 dB, 75 ohms, positive Green with sync signal : 1 V $\pm$ 2 dB, 75 ohms, positive
12	○	○	Open	
13	○	○	Ground (red)	
14	○	○	Ground (blanking)	
15	○	●	Red input	(Same as Pin 7)
16	○	●	Blanking input (Ys signal)	High state (1–3 V) Low state (0–0.4 V) Input impedance : 75 ohms
17	○	○	Ground (video output)	
18	○	○	Ground (video input)	
19	○	○	Video output	1 V $\pm$ 2 dB, 75 ohms, positive Sync : 0.3 V (–3, $\pm$ 10 dB)
20	○	○	Video input	1 V $\pm$ 2 dB, 75 ohms, positive Sync : 0.3 V (–3, $\pm$ 10 dB)
21	○	○	Common ground (plug, shield)	

\* at 20 Hz–20 kHz    ○ connected    ● unconnected (open)



## 1-3. FUNCTION OF CONTROLS

**On the set****On-screen display**

Indicates program numbers and input modes.

**Bar display**

Indicates the level of volume, color, brightness, contrast, bass, treble and balance.

**Note on function.**

When the volume is at the minimum setting the balance function will not operate.

 **Power switch**

To cut off the mains power completely, press this switch. Depress the power switch fully to ensure correct operation of the set.

**Note**

To ensure correct operation, push the switch in fully.

 **standby indicator**

Lights up brightly when the set is in the standby mode.

**Note**

If the main power is turned off when in standby mode, the standby indicator will take 2 to 6 seconds to go off.

 **space sound indicator**

Lights up when on the Remote Commander is pressed.

**A/B indicators**

One of them lights during bilingual broadcast. (Choose A or B with the Remote Commander.)

Both light during stereo broadcast. In AV mode, A lights for left channel, B for right channel, or A and B for both channels.

**Remote control detector**

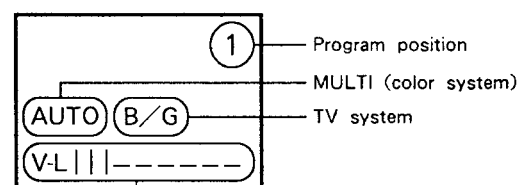
Point the Remote Commander towards this detector.

**Inside the panel** **headphones jack (stereo minijack)** **SEARCH buttons**

Press to fine tune a weak channel manually, if required. When is pressed, the indicator (AFT) goes off and the AFT circuit does not function on the selected channel. To restore the AFT circuit on this channel, press so that the indicator lights up.

 **AFT button and indicator**

Normally, press so that the indicator lights up. The AFT circuit automatically fine tunes the channel for the best possible picture.

 **volume buttons****PROGR+, PROGR- program scan buttons****On-screen display during presetting**

Indicates the approximate location in the band of the channel being tuned in.

"V-L" : low VHF band, "V-H" : high VHF band, "UHF" : UHF band.

The number of upright segments increases for a higher-frequency channel.

Each time TV button is pressed, the following indications appear in this order :

B/G : West European TV standard

I : British TV standard

M : American TV standard

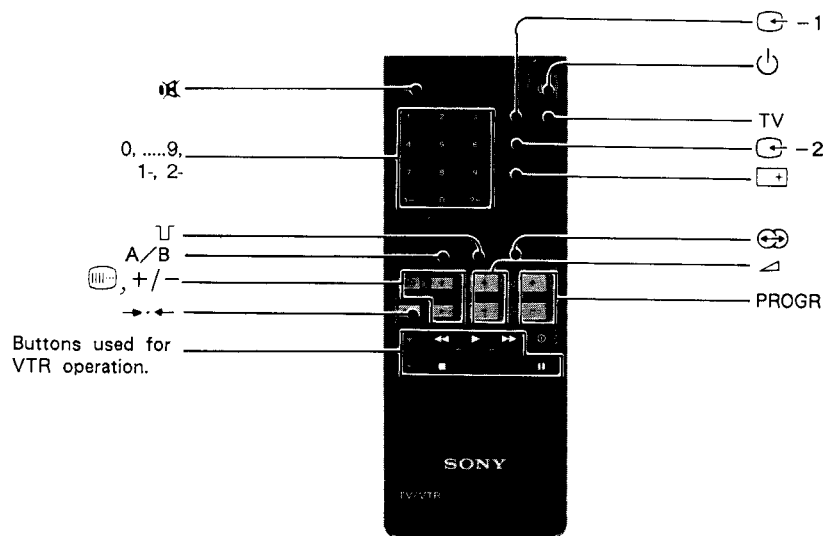
D/K : East European TV standard

L : French TV standard

Each time MULTI button (COLOR SYSTEM) is pressed, the following indications appear in this order :

AUTO ; NTSC3.58 ;

Normally set to the AUTO position. The available color system is selected automatically.



RM-673

## On the Remote Commander

To operate the Commander, point it toward the remote control detector.

### mute button

### 0, ..., 9, 1-, 2- buttons

To tune into :  
program 15, press 1- and 5.  
program 25, press 2- and 5.

### A/B button

Press to select the language in a bilingual broadcast, or to select the channel in AV mode.

### , + / - analogue select buttons

Press .  
● will appear on the screen. Adjust by pressing + or -.  
Press again and adjust ● (color), then ☼ (brightness), ♫ (bass), ♪ (treble) and ⚖ (balance).

### → • ← reset button

Press to reset color, contrast and brightness to factory-set levels.

### standby button

Press to change to the standby mode. Use this button to turn off the set for short periods of time.  
To turn on the set, press TV or the program number; there will be a slight delay before the picture is restored.

If the main power is turned off when in standby mode, the standby indicator will take 2 to 6 seconds to go off.

### TV button

Press to change to the TV mode from standby, input or teletext modes.

### 1 input button

Press to view the input picture coming in through the -1 connector.  
“ 1” lights up on the screen.  
Press TV or the program number to return to the TV mode.

### 2 input button

Press to view the input picture coming in through the -2 connector.  
“ 2” lights up on the screen.  
Press TV or the program number to return to the TV mode.

### on-screen display button.

Press to make the display appear on the screen.  
Press again to make it disappear.

### loudness button

Press to emphasize high and low notes.

### space sound button

Press to obtain special acoustic effects.

### volume buttons

### PROGR program scan buttons

#### Note

Buttons not referred to on this page or next page do not operate.

## 1-4. VIEWING TELETEXT

To view the teletext service, use the Remote Commander. The buttons for teletext operation are indicated in green.

### Operation

- 1 Select the TV channel for the desired teletext service.
- 2 Press / (TEXT / MIX) to display the teletext service. Once / has been pressed, the TV channel cannot be changed.
- 3 Key in the three digits for the desired page using the number buttons. If an error is made, complete the three-digit sequence by keying in any digit. Then re-enter the correct page number. The requested teletext page is displayed.

To return to the TV mode, press TV on the remote commander.

The teletext service can be displayed directly from the standby mode, by pressing / .

### To receive the teletext service of a different TV channel

- 1 Press TV to return to the TV mode.
- 2 Select the desired TV channel.
- 3 Press / .

### Note

To receive the teletext service accurately, keep inside the panel switched on during teletext operation.

### To display the index page

Press (INDEX).

If the necessary signal is not being broadcast, page 100 is displayed.

### To access the next or preceding page

Press (PAGE+) or (PAGE-).

### To superimpose the teletext display on the TV picture

Press / twice from TV mode.

Press again to return to the TEXT display.

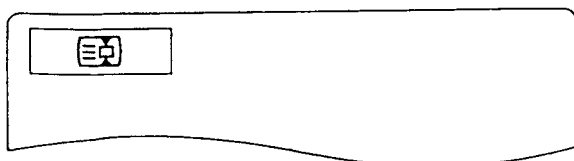
### To suppress the teletext display so that the TV picture is displayed

Press (TEXT CL).

This button can be operated from both the TEXT and MIX displays.

### To prevent a teletext page (subpage) from being updated / changed

Press (HOLD). The HOLD symbol appears at the top of the screen.



To resume normal teletext reception, press / .

### To enlarge the teletext display

Press .

Press once to enlarge the upper half of the display; press again to enlarge the lower half of the display; press again to return to the normal display.

### To reveal concealed information such as the answers to a quiz

Press (REVEAL).

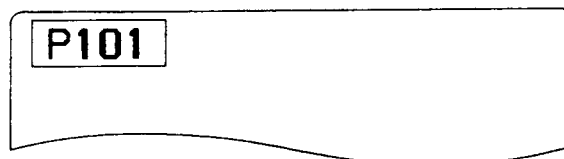
Press again to conceal the answers.

### To adjust the contrast of the teletext display.

When in teletext mode, adjust by using the + or - keys adjacent to the key.

### To watch the TV program while waiting for a requested page to be displayed

- 1 Request the new page.
- 2 Press to watch the TV program. The requested page number appears at the top left of the screen. When the requested page has been captured, the page number is displayed in the top left hand corner of the screen.



To view this page, press / .

### To have a requested page displayed at a pre-determined time

- 1 Request a time coded page (e. g. alarm page).
- 2 Press (TP ON). "T\*\*\*\*" will appear at the bottom of the screen.



- 3 Enter your request time with the number buttons, using four digits. For example, 07 : 30.



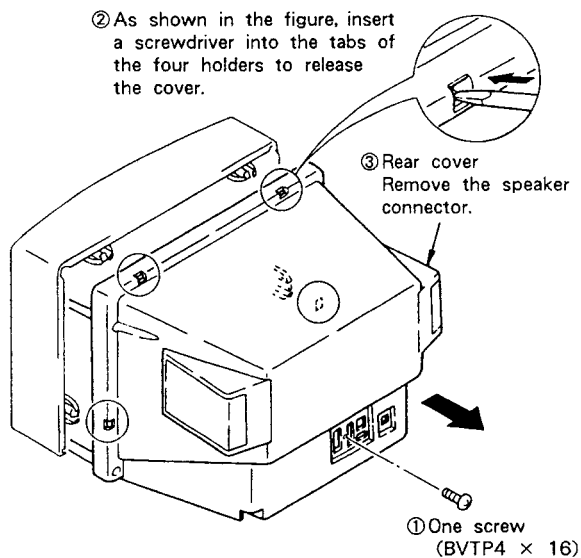
To watch the TV program until the requested time, press . At the requested time, the page number will be displayed at the bottom of the screen.

To view this page, press / .

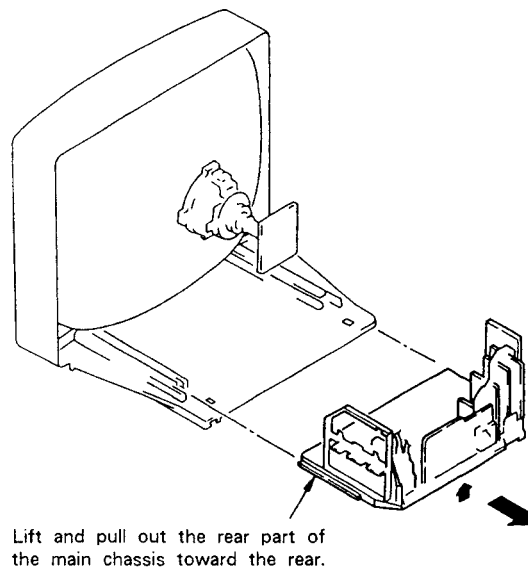
To cancel the request, first ensure that the teletext page is displayed, then press (TP OFF).

## SECTION 2 DISASSEMBLY

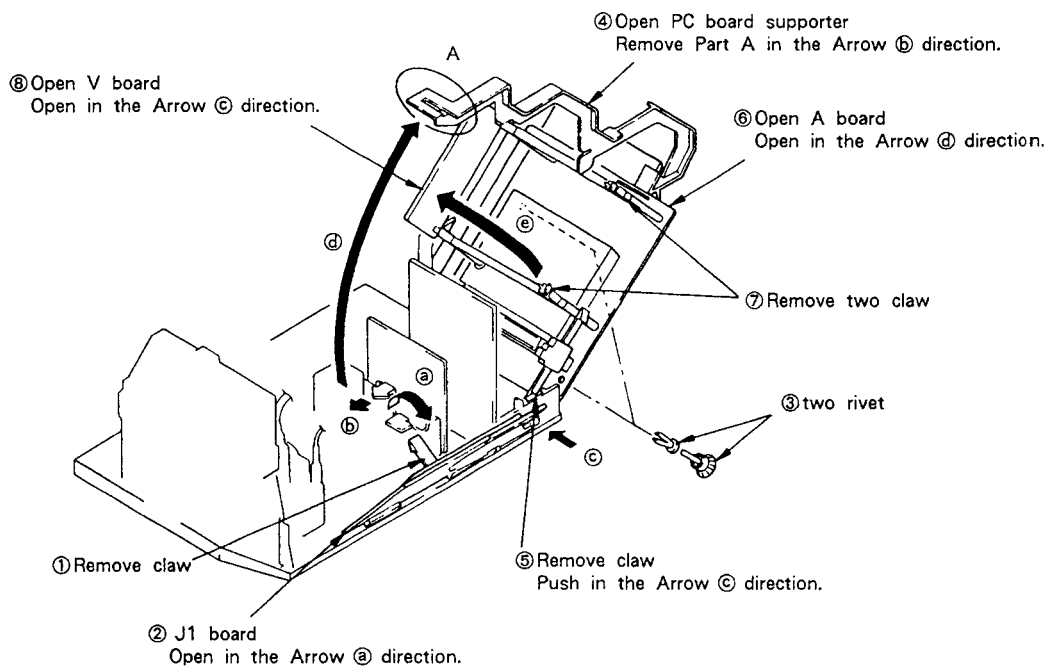
### 2-1. REAR COVER REMOVAL



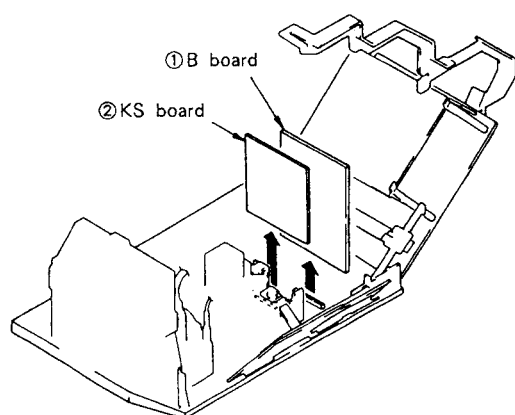
### 2-2. CHASSIS ASSY REMOVAL



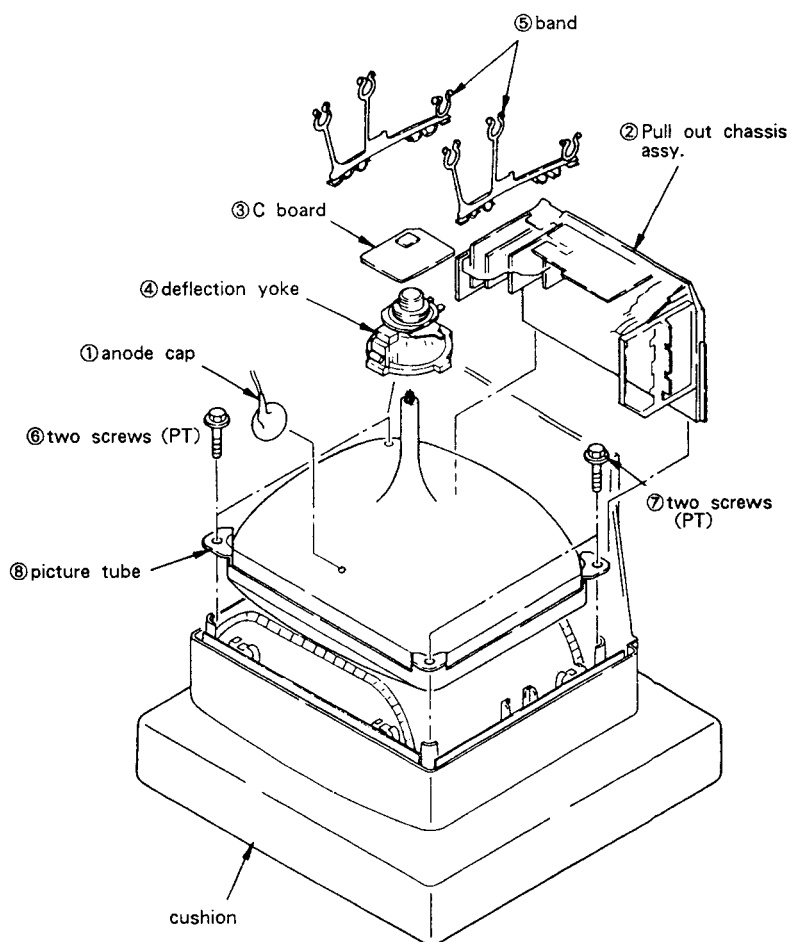
### 2-3. J1, A AND V BOARDS REMOVAL



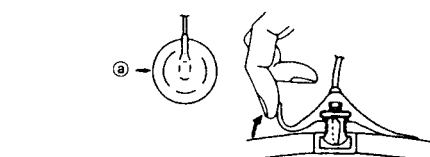
## 2-4. KS AND B BOARDS REMOVAL



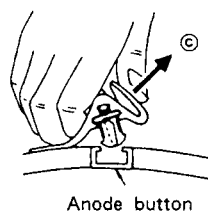
## 2-5. PICTURE TUBE REMOVAL



### ● Removing Procedures

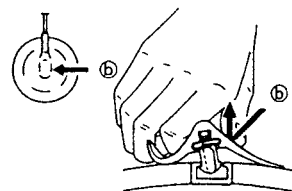


- ① Turn up one side of the rubber cap in the direction indicated by the arrow ①.



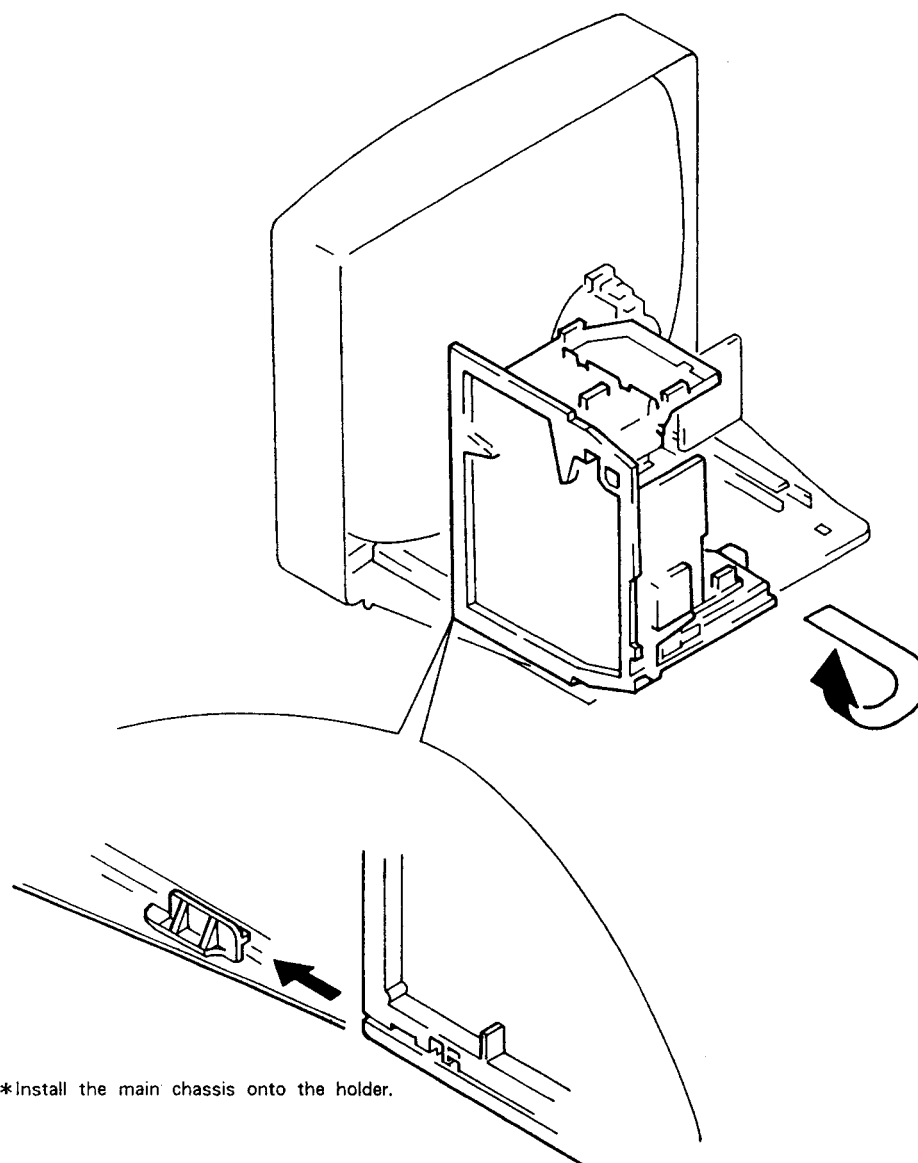
Anode button

- ② Using a thumb, pull up the rubber cap firmly in the direction indicated by the arrow ②.



- ③ When one side of the rubber cap is separated from the anode button, the anode cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ③.

## 2-6. SERVICE POSITION



\*Install the main chassis onto the holder.

## SECTION 3

### SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

The control and switch below should be set as follows unless otherwise noted :

- CONTRAST control ..... 80% (or Normal by Commander)
- ☼ BRIGHTNESS control ..... 50%

Perform the adjustments in order as follows :

1. Beam Landing
2. Convergence
3. Focus
4. White Balance

**Note :** Test Equipment Required.

1. Color Bar/Pattern Generator
2. Degausser
3. DC Power Supply
4. Digital multimeter
5. Oscilloscope

#### 3-1. BEAM LANDING

1. Input a raster signal with the pattern generator.  
 CONTRAST } normal  
 BRIGHTNESS }
2. Turn the raster signal of the pattern generator to red.
3. Move the deflection yoke backward, and adjust with the purity control so that red is in the center and blue and green are at the sides, evenly. (Fig. 3-1 to 3-3)
4. Move the deflection yoke forward, and adjust so that the entire screen becomes red. (Fig. 3-1)
5. Switch over the raster signal to blue and green and confirm the condition.
6. When the position of the deflection yoke is determined, tighten it with a deflection yoke mounting screw.
7. When landing at the corners is not right, adjust by using the magent. (Fig. 3-4)

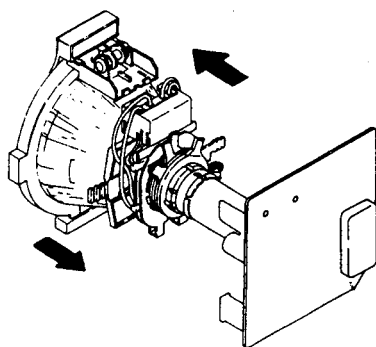


Fig. 3-1

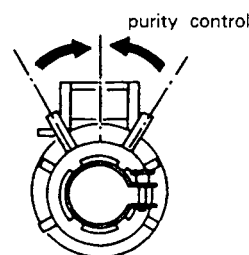


Fig. 3-2

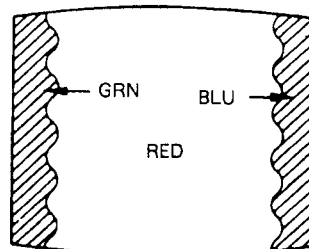


Fig. 3-3

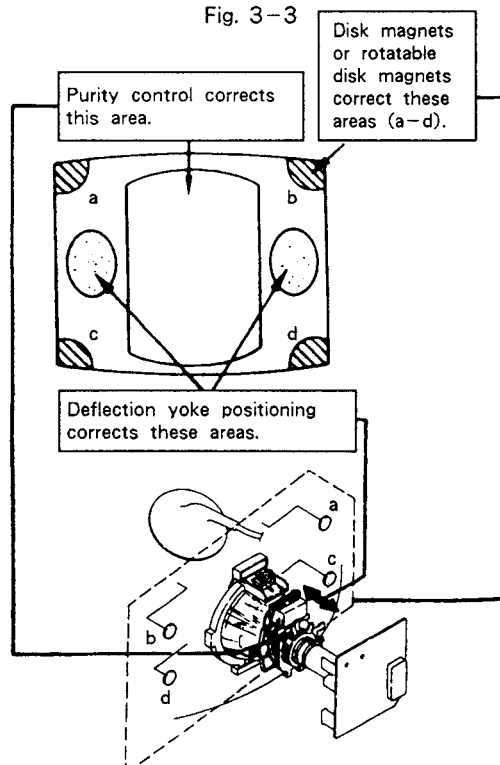


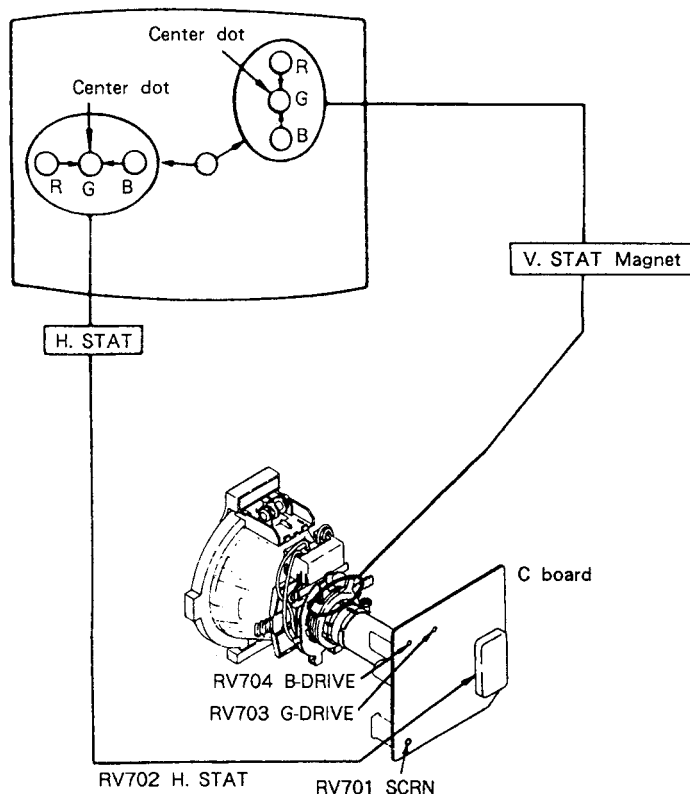
Fig. 3-4

### 3-2. CONVERGENCE

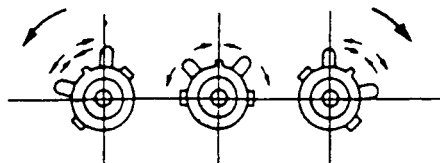
#### Preparation :

- Before starting, perform FOCUS, H. SIZE and V. SIZE adjustments.
- Set BRIGHTNESS control to minimum.
- Feed in the dot pattern.

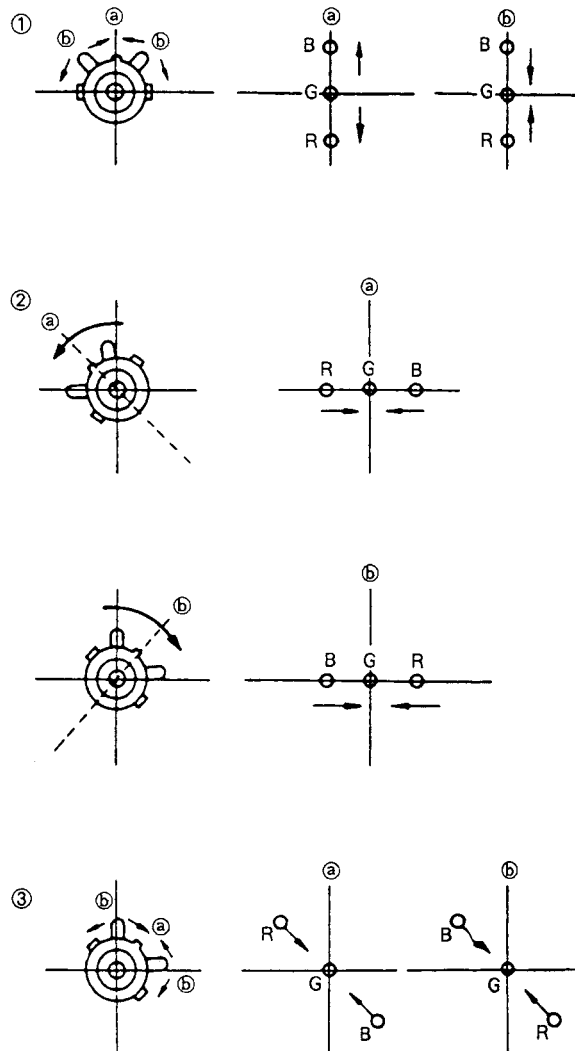
#### (1) Horizontal and Vertical Static Convergence



1. Adjust H. STAT VR to coincide red, green and blue dots on the center of screen. (Horizontal movement)
  2. Adjust V. STAT magnet to coincide red, green and blue dots on the center of screen. (Vertical movement)
  3. If the red, green and blue dots do not coincide on the center of screen with H. STAT VR, perform horizontal convergence adjustment using H. STAT VR and V. STAT magnet as shown below. (In this case, H. STAT VR and V. STAT magnet effect each other.)
- Tilt the V. STAT magnet and adjust static convergence to open or close the V. STAT magnet.



4. When the V. STAT magnet is moved in the direction of arrow (a) and (b), red, green and blue dots move as shown below.

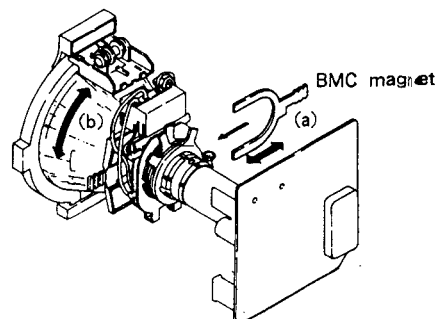


If the red and blue dots do not coincide with green dot, perform following steps.

Move BMC magnet (a) to correct insufficient H. static convergence.

Rotate BMC magnet (b) to correct insufficient V. static convergence.

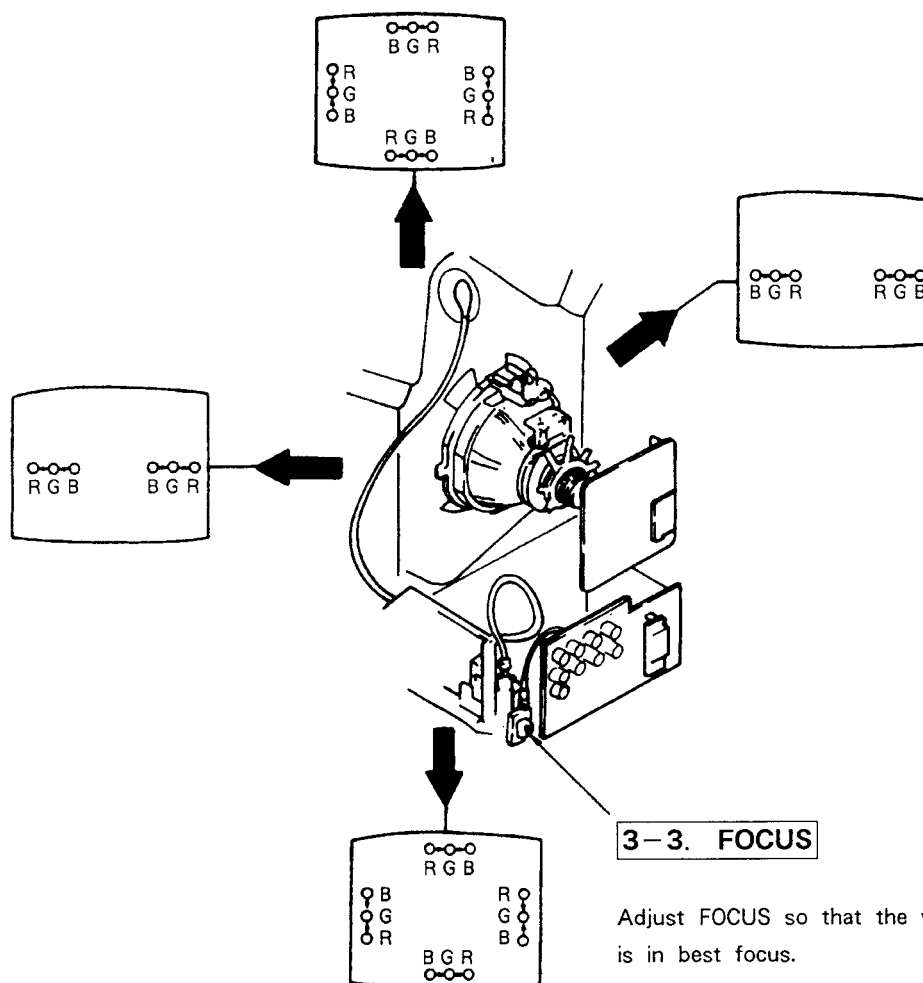
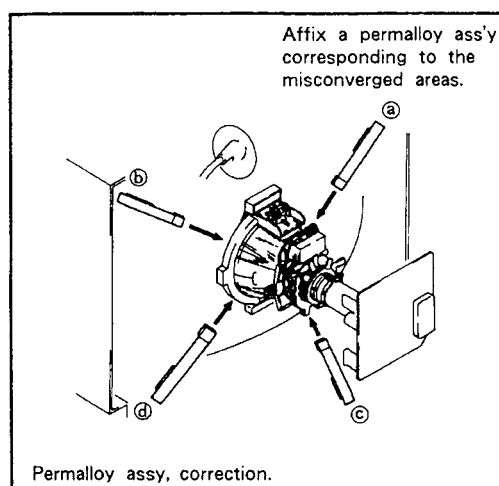
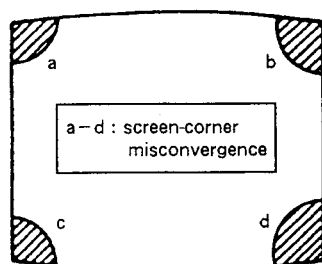
In either case, repeat Beam Landing Adjustment.





**(2) Dynamic Convergence Adjustment****Preparation :**

- Before starting, perform Horizontal and Vertical Static Convergence Adjustment.
1. Slightly loosen deflection yoke screw.
  2. Remove deflection yoke spacers.
  3. Move the deflection yoke for best convergence as shown below.
  4. Tighten the deflection yoke screw.
  5. Install the deflection yoke spacers.

**(3) Screen-corner Convergence**

### **3-4. WHITE BALANCE**

#### **[Screen (G2) Setting]**

1. Input dot signals from the pattern generator.
2. Set the picture BRIGHTNESS control to the minimum level.
3. Apply 170 V dc to the cathodes of R, G, and B from an external power source.
4. While watching the picture, adjust the G2 volume (RV701) immediately before the fly-back line disappears.

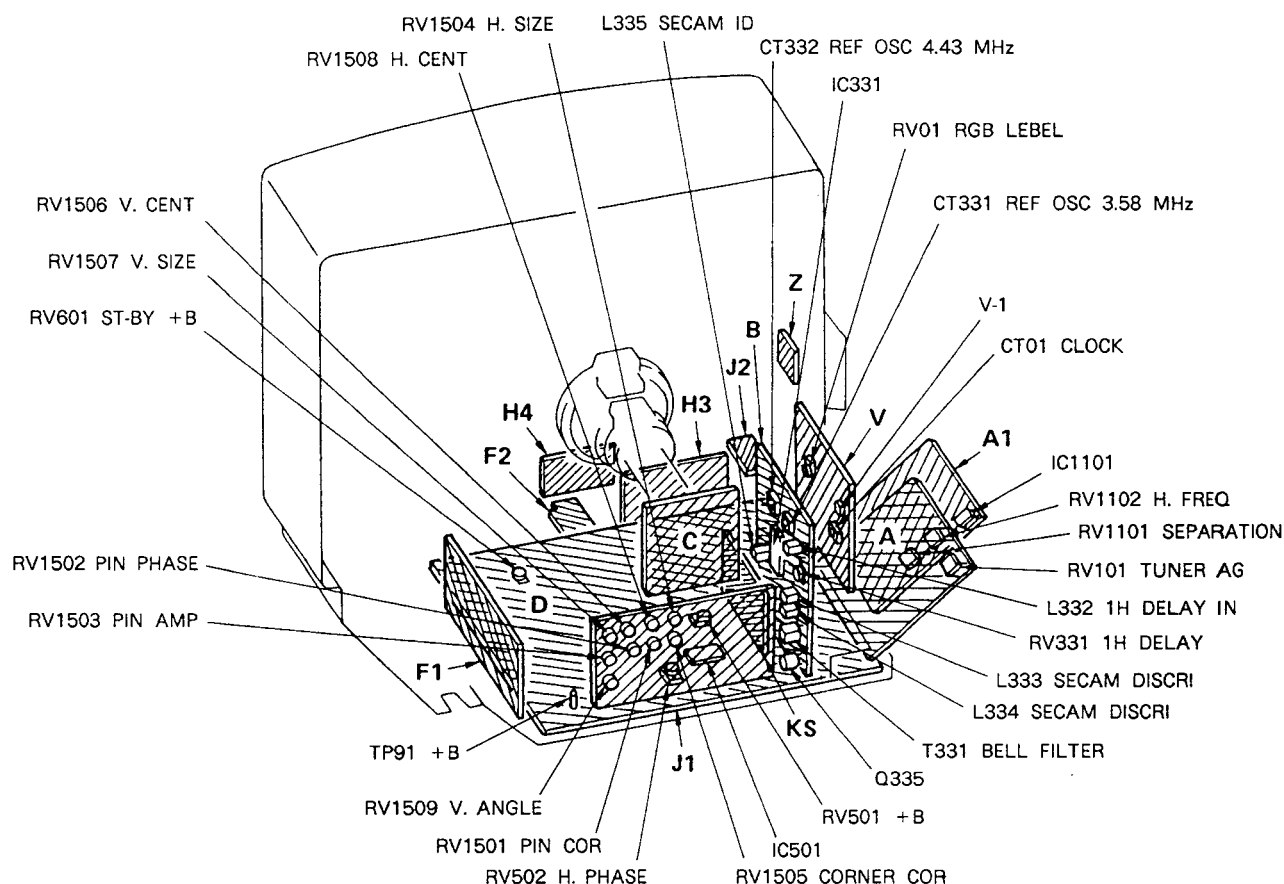
#### **[White Balance Adjustment]**

1. Input all-white signals from the pattern generator.
2. Adjust the BRIGHTNESS and COLOR controls to the standard level.
3. Adjust the white balance using RV704 (B DRIVE) and RV703 (G DRIVE).

In the following adjustments, the CONTRAST COLOR and BRIGHTNESS controls are set to normal unless otherwise specified.

## SECTION 4

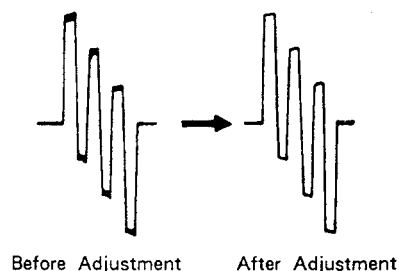
### CIRCUIT ADJUSTMENTS



#### 4-1. B BOARD ADJUSTMENTS

##### REF OSC 4.43 MHz Adjustment (CT332)

1. Input a PAL COLOR BAR pattern.
2. Short circuit between pin ⑩ of IC331 and ground.
3. Adjust CT332 to obtain color synchronization.
4. Remove the jumper wire from IC331.



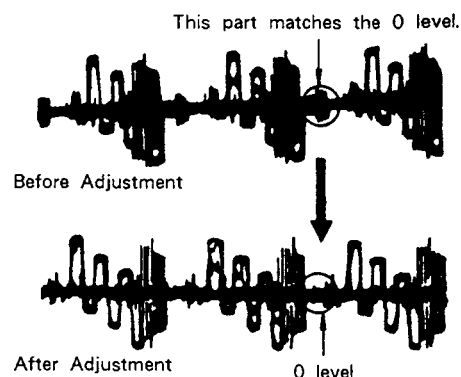
##### REF OSC 3.58 MHz Adjustment (CT331)

1. Input a NTSC 3.58 MHz COLOR BAR pattern.
2. Short circuit between pin ⑩ of IC331 and ground.
3. Adjust CT331 to obtain color synchronization.
4. Remove the jumper wire from IC331.

4. Input a PAL TEST COLOR BAR pattern.
5. Rotate the RV331 VR and adjust till the ANTI-PAL part of the waveform matches the 0 level.

##### 1H DELAY LINE Adjustment (L332, RV331)

1. Input a PAL COLOR BAR pattern.
2. Connect the oscilloscope to pin ③ (B-Y) of IC331 and observe the waveform of the H block on the oscilloscope.
3. Adjust L332 to minimize the double waveform outline.



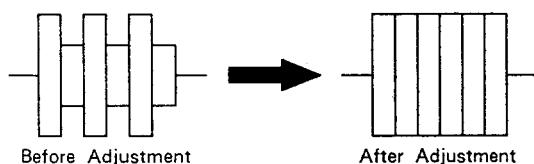
6. L332 and RV331 affect each other. So repeat till the conditions of both are met.

#### SECAM ID Adjustment (L335)

1. Input a SECAM COLOR BAR pattern.
2. Connect a Digital Multimeter at pin ⑩ of IC331.
3. Adjust L335 so that the indicator goes up to the maximum.

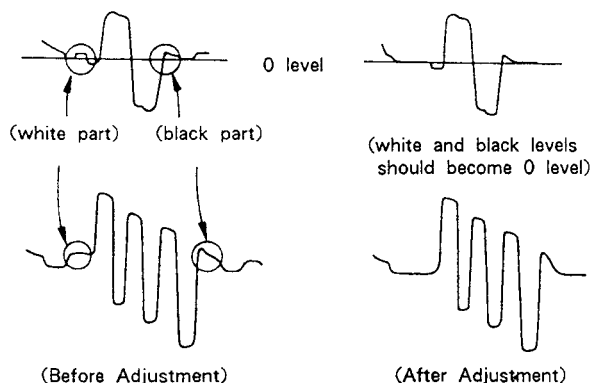
#### BELL FILTER Adjustment (T331)

1. Input a SECAM COLOR BAR pattern.
2. Connect an oscilloscope to the Q335 emitter.
3. Adjust T331 so that the waveform becomes flat.



#### SECAM DISCRI Adjustment (L333, L334)

1. Input a SECAM COLOR BAR pattern.
2. Connect an oscilloscope to pin ① of IC331.
3. Adjust L333 so that white and black parts of the waveform of pin ① becomes 0 level.
4. Connect an oscilloscope to pin ③ of IC331.
5. Adjust L334 so that white and black parts of the waveform of pin ③ becomes 0 level.



### 4-2. D BOARD ADJUSTMENTS

#### +B Adjustment (RV501)

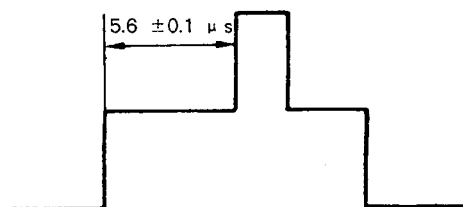
1. Connect a Digital Multimeter to TP91.
2. Adjust RV501 so that the voltage becomes  $135 \pm 0.2$  V.

#### ST-BY +B Adjustment (RV601)

1. Set up  $\cup$  standby (Remote Commander) mode.
2. Connect the Digital Multimeter to TP91.
3. Adjust RV601 so that the voltage becomes  $135 \pm 3$  V.
4. Release the  $\cup$  standby (Remote Commander) mode.

#### H. PHASE Adjustment (RV502)

1. Input a PAL TEST COLOR BAR pattern.
2. Set the CONTRAST and BRIGHTNESS controls to the standard positions.
3. Set RV1508 (H. CENT) to the mechanical center position.
4. Connect an oscilloscope to pin ⑩ (SPC OUT) of IC501.
5. Rotate RV502 and adjust Block T to  $5.6 \pm 0.1$   $\mu$ s.



### 4-3. A BOARD ADJUSTMENT

#### TUNER AGC Adjustment (RV101)

1. Tune in an off-air signal.
2. Adjust RV101 so that snow-noise and cross-modulation just disappear from the picture.

### 4-4. A1 BOARD ADJUSTMENTS

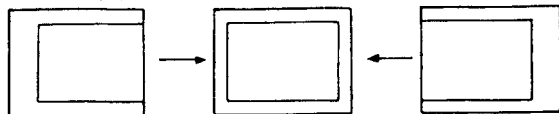
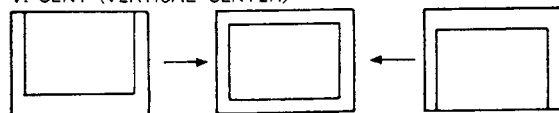
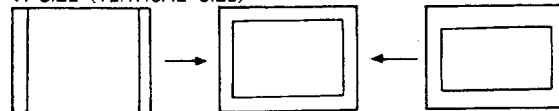
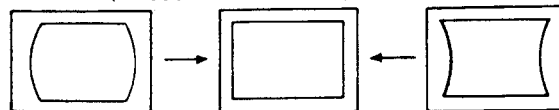
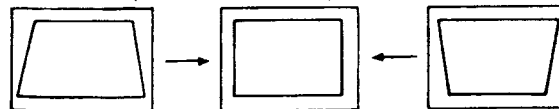
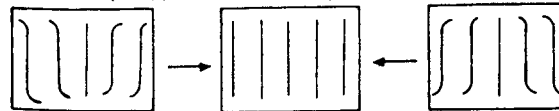
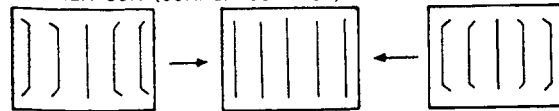
#### STEREO SEPARATION Adjustment (RV1101)

1. Input stereo signals. (L-CH 1 kHz, R-CH 400 Hz)
2. Check the stereo indicator.
3. Connect an oscilloscope to pin ① (L) of CNA11 through band pass filter of 1 kHz.
4. Adjust RV1101 so that 1 kHz voltage goes down to the minimum.

#### H. FREQ Adjustment (RV1102)

1. Input a PAL COLOR BAR pattern.
2. Short circuit between pin ⑩ of IC1101 and ground.
3. Connect a frequency counter to pin ⑥ of IC1101 through a probe of 10:1.
4. Adjust RV1102 so that H. frequency becomes  $15,625 \pm 50$  Hz

## 4-5. J1 BOARD ADJUSTMENTS

RV1508  
H. CENT (HORIZONTAL CENTER)RV1504  
H. SIZE (HORIZONTAL SIZE)RV1506  
V. CENT (VERTICAL CENTER)RV1507  
V. SIZE (VERTICAL SIZE)RV1509  
V. ANGLE (VERTICAL ANGLE)RV1503  
PIN AMP (PINCUSHION AMPLIFIER)RV1502  
PIN PHASE (PINCUSHION PHASE)RV1501  
PIN COR (PINCUSHION CORRECT)RV1505  
CORNER COR (CORNER CORRECT)

## 4-6. V BOARD ADJUSTMENTS

## Clock Adjustment (CT01)

1. Disconnect the V-1 connector.
2. Set up the TELE TEXT mode.
3. Adjust CT01 to stop pictures from scrolling.

## RGB Level Adjustment (RV01)

1. Set PICTURE to maximum.
2. Adjust RV01 till the RGB output becomes 0.65 V.

## 4-7. SUB ADJUSTMENTS

## SUB BRIGHTNESS Adjustment

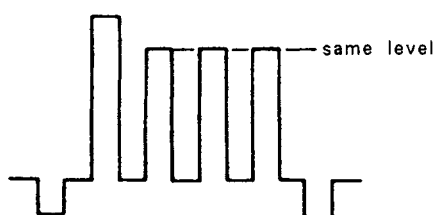
1. Receive and display a TEST COLOR BAR pattern.
2. Push →•← on the remote commander to invoke the normal state.
3. Turn off the power supply.
4. Turn on the power supply while pushing the SUB button (S1414). (SUB mode is invoked.)
5. Reduce the CONTRAST to the minimum level.
6. Adjust the BRIGHTNESS control until the 0 IRE of the gray scale becomes completely cut off, and the 20 IRE becomes barely luminous.
7. Push the AFT button. (SUB mode is cleared)

Where no TEST COLOR BAR pattern is available.

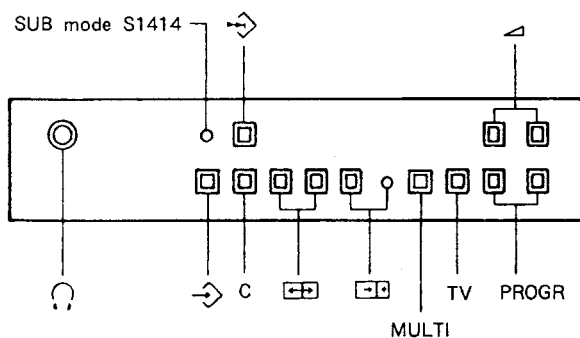
1. Display a COLOR BAR pattern.
2. Push →•← on the remote commander to invoke the normal state.  
Set the COLOR to normal mode.  
Steps 3 - 5 are the same as above.
3. 20 IRE is close to blue, so adjust the BRIGHTNESS control till blue is faintly luminous.
4. Same as Step 7 above.
5. Push →•← on the remote commander to invoke the normal state.
- \* When Step 4 is executed correctly, S (SUB mode) is displayed at the upper right of the display. As S is displayed only for 30 seconds, perform the adjustment within 30 seconds, or repeat from Step 4.

**SUB COLOR Adjustment**

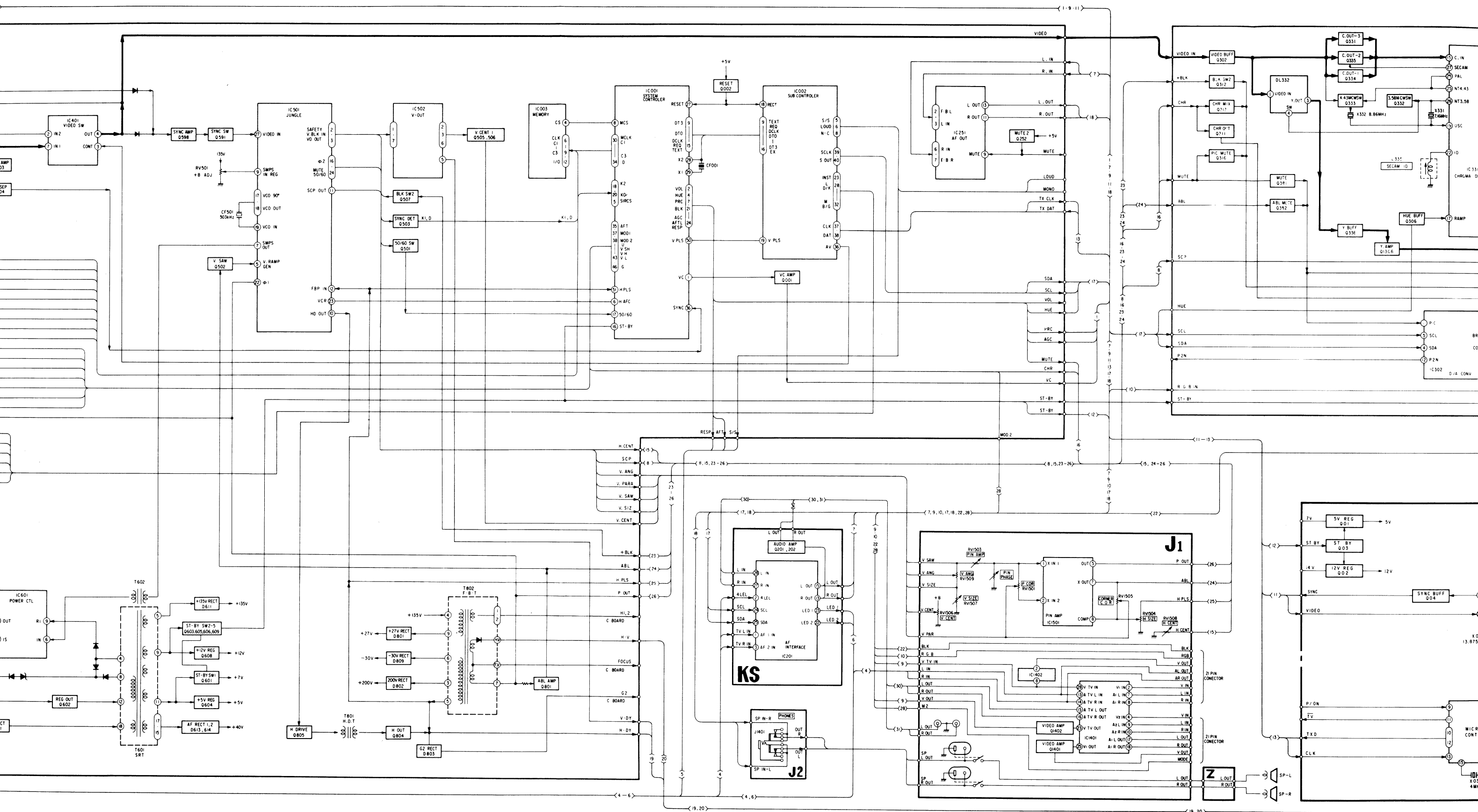
1. Display a COLOR BAR pattern.
2. Push →•← on the remote commander to invoke the normal state.
3. Turn off the power supply.
4. Turn on the power supply while pushing the SUB button (S1414). (SUB mode is invoked.)
5. Adjust the COLOR control until the B out (pin ② of CNC72 connector on C board) waveform becomes as shown below.
6. Push the AFT button. (SUB mode is cleared.)



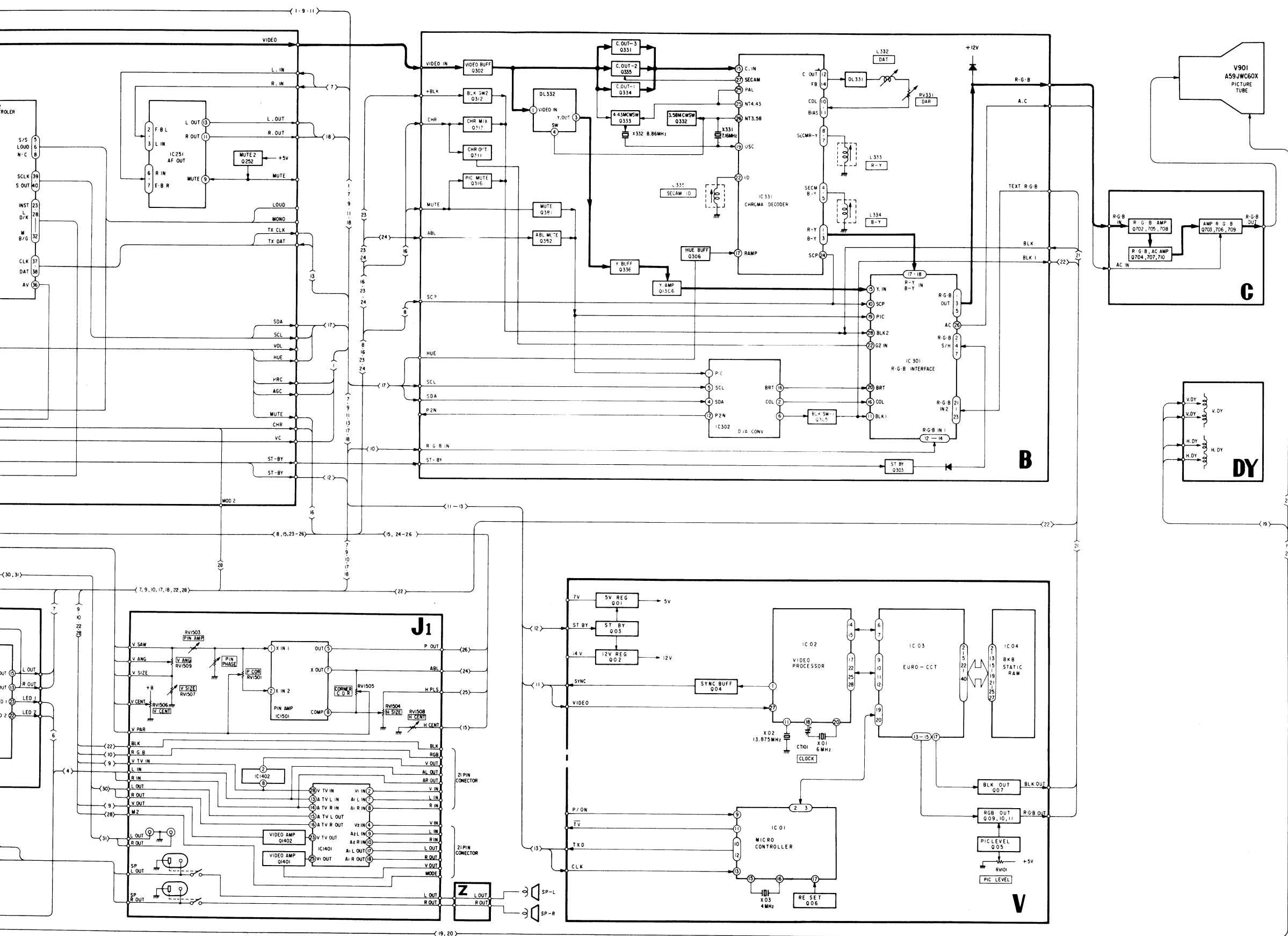
- \* When Step 4 is executed correctly, S (SUB mode) is displayed at the upper right of the display. As S (SUB mode) is displayed only for 30 seconds, perform the adjustment with 30 seconds, or repeat from Step 4.



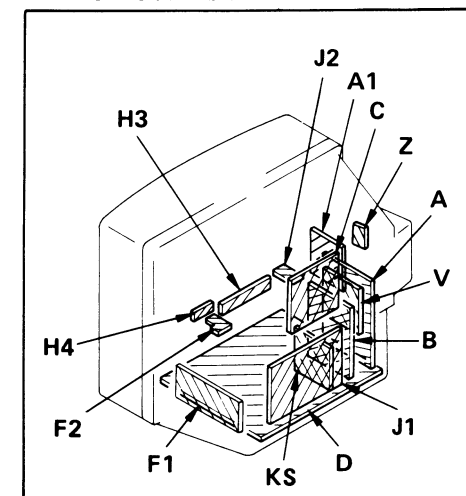
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## 5-2. CIRCUIT BOARDS LOCATION



## Note:

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  
pF:  $\mu\text{F}$  50 WV or less are not indicated except for electrolytics.
- Indication of resistance, which does not have one for rating electrical power is as follows.

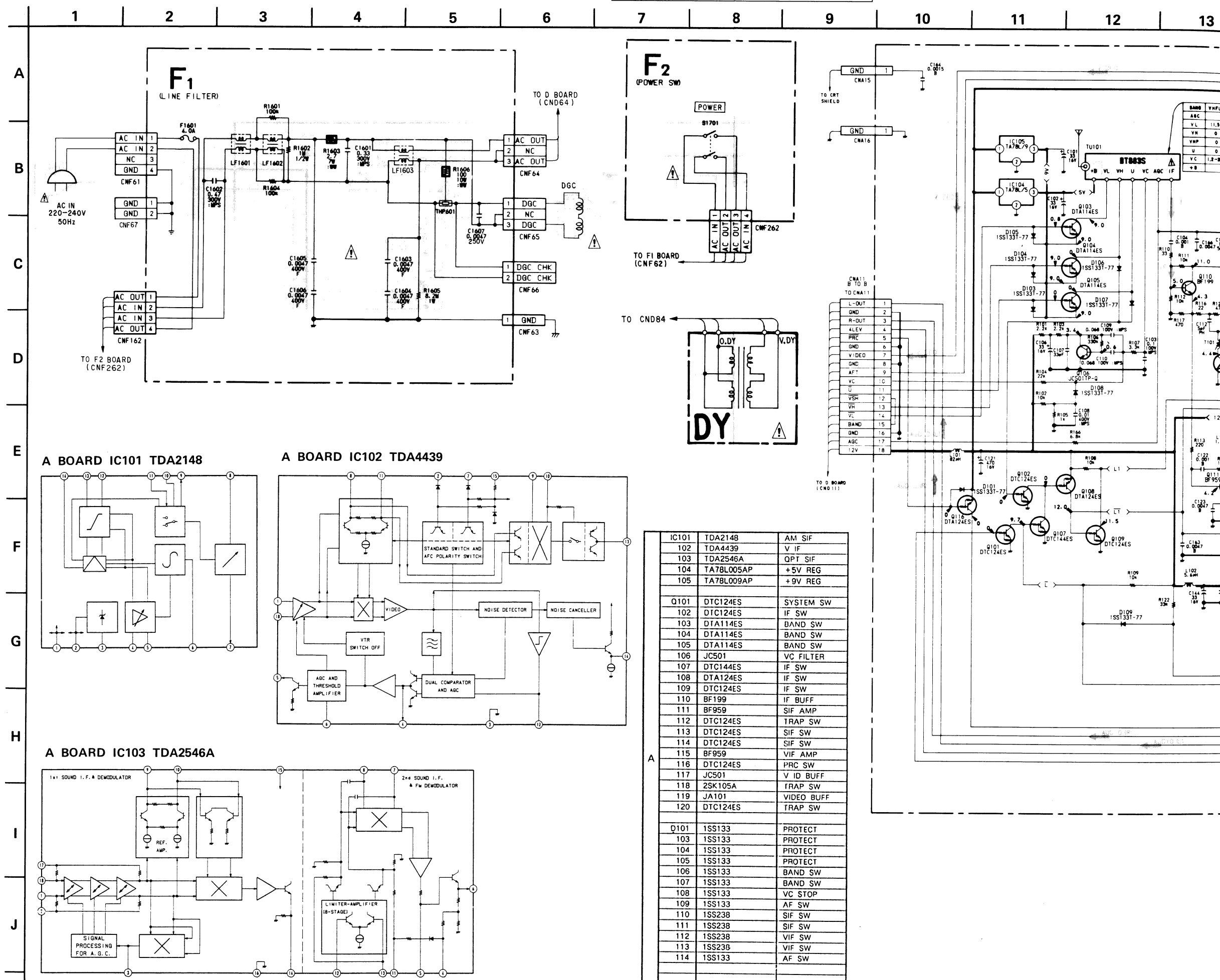
Pitch: 5 mm  
Rating electrical power 1/4W

- All resistors are in ohms.
- : nonflammable resistor.
- : fusible resistor.
- : internal component.
- : panel designation.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- All voltages are in V.
- Readings are taken with a 10 M $\Omega$  digital multimeter.
- Readings are taken with a PAL color-bar signal input.
- : adjustment for repair.
- Voltage variations may be noted due to normal production tolerance.
- : B+ bus.
- : B- bus.
- : signal pass.

## Reference information


RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE WIREWOUND
	: RB	NONFLAMMABLE CEMENT
COIL	: LF-8L	MICRO INDUCTOIR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED PORYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

Note: The components identified by shading and mark are critical for safety. Replace only with part number specified.






1



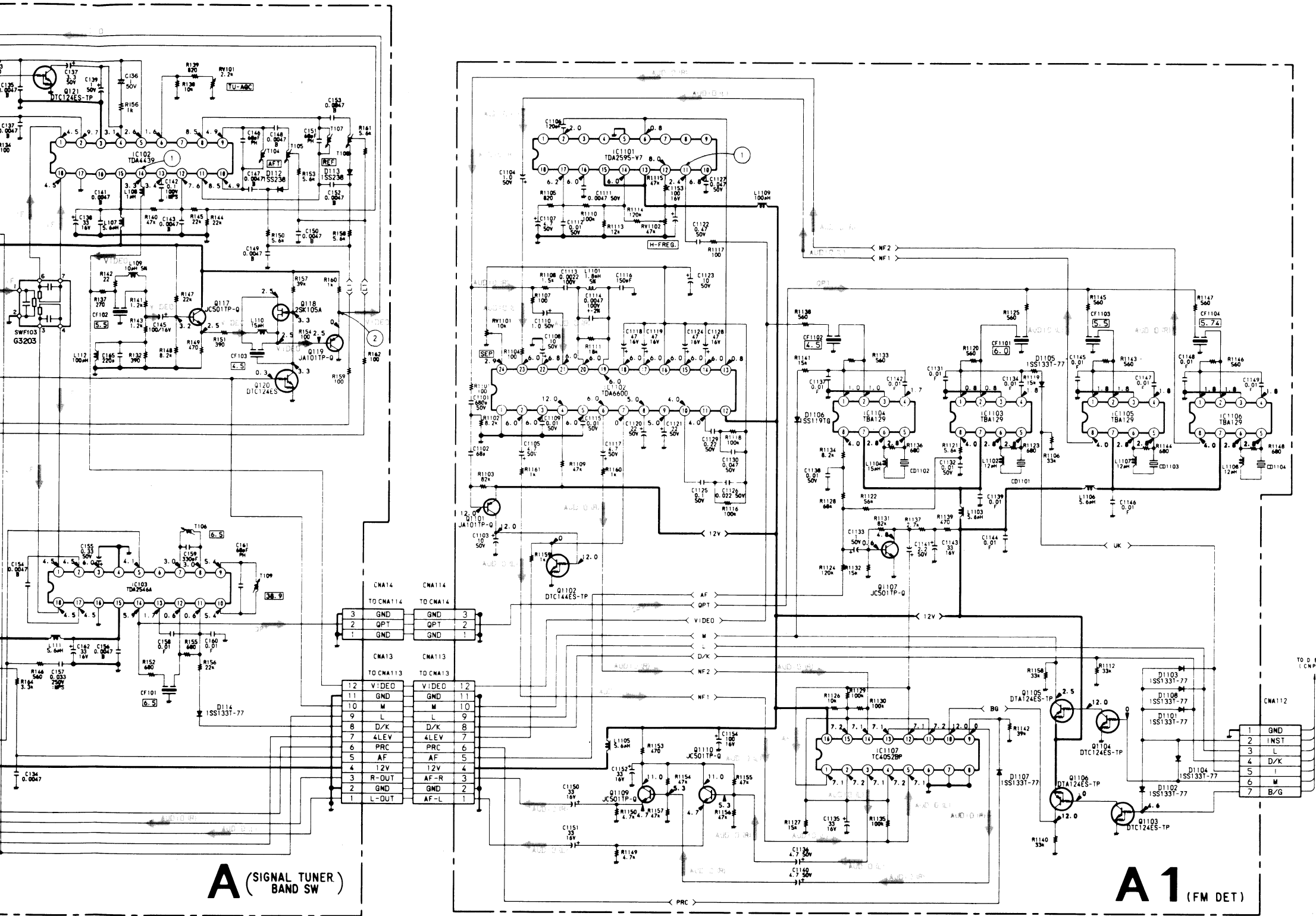
3vp - p(H)

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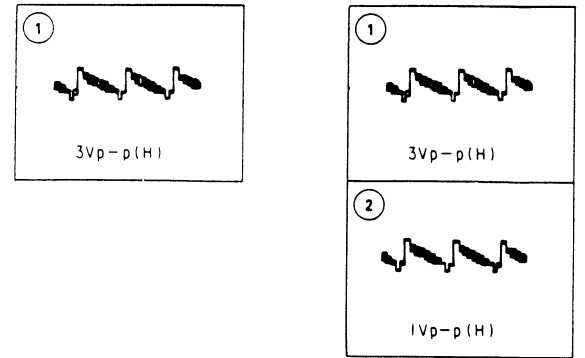
2



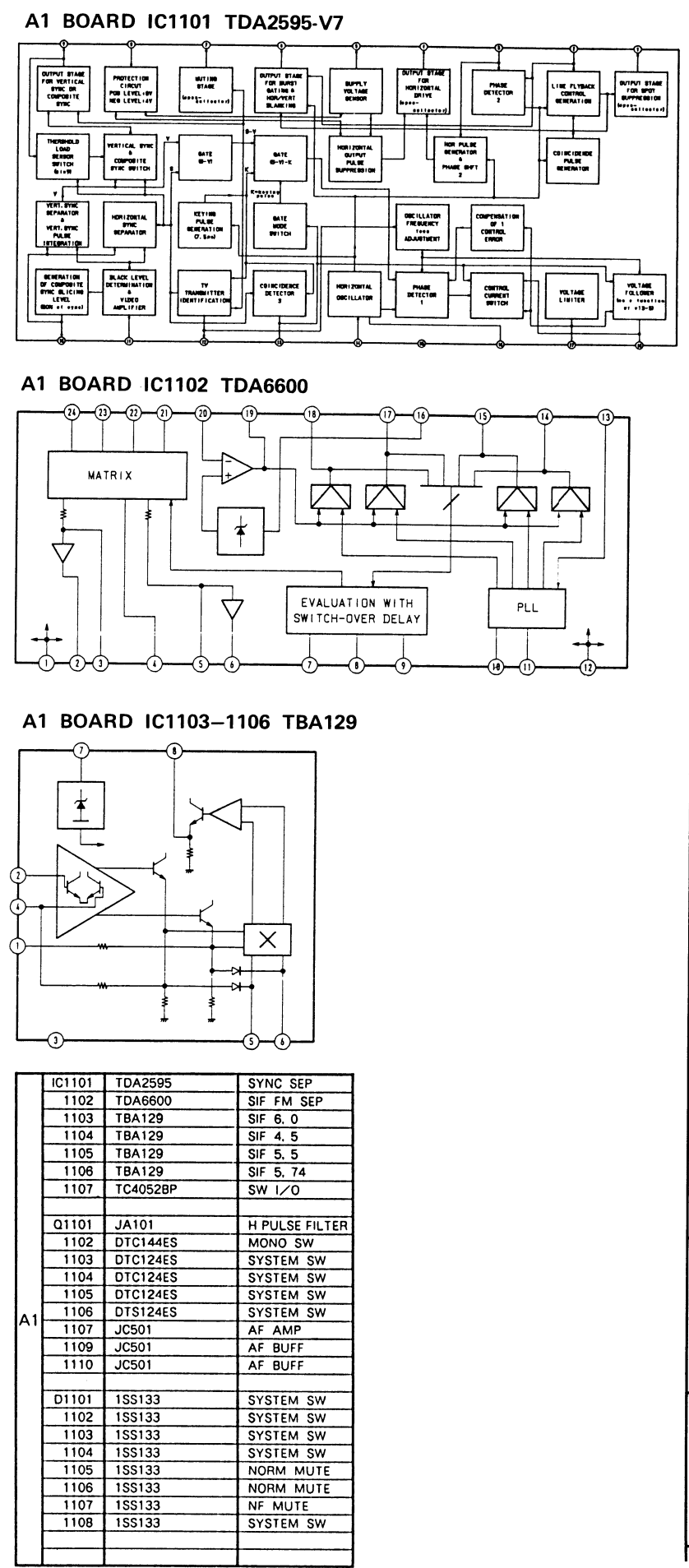
1vp - p(H)



• A1 BOARD WAVEFORM • A BOARD WAVEFORM

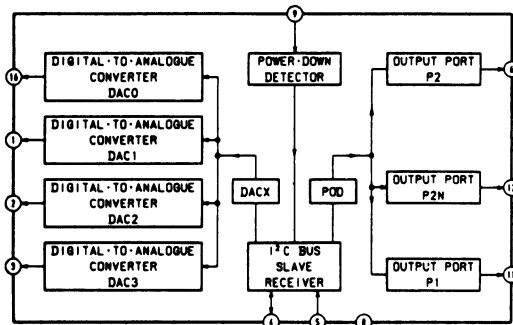


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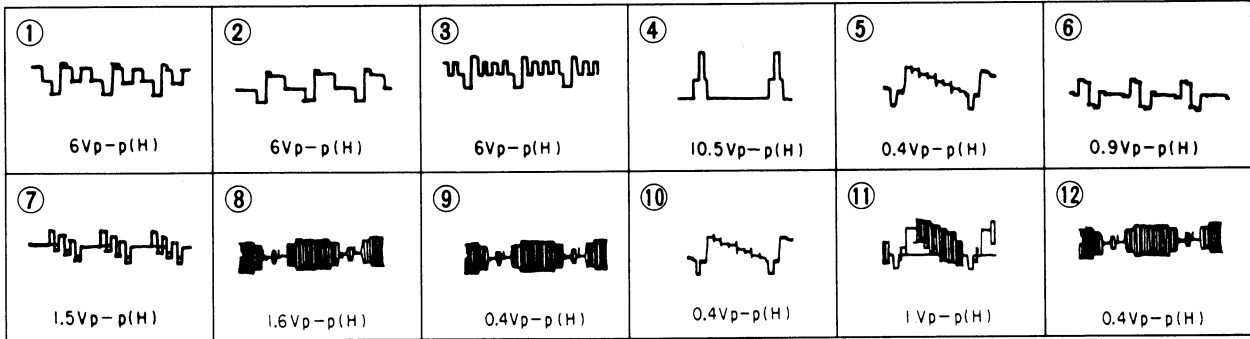


A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O  
P

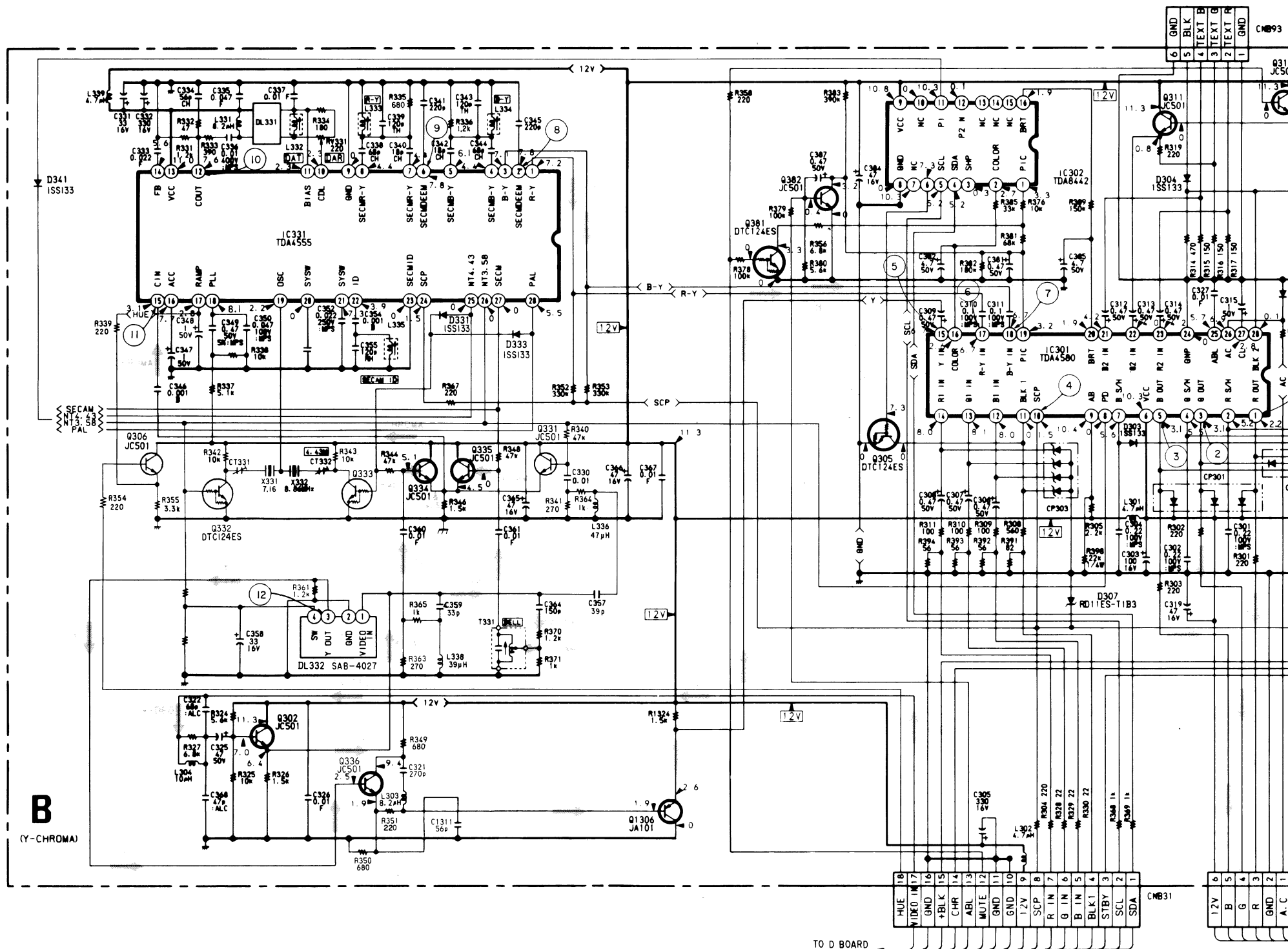
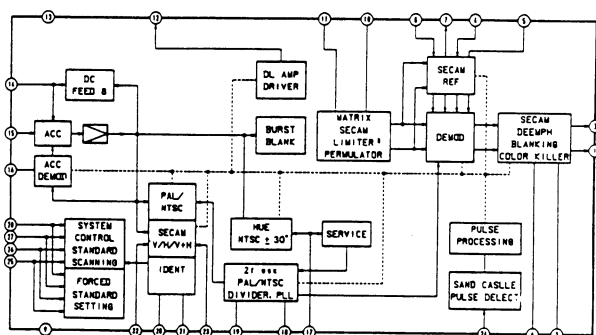
B BOARD IC302 TDA8442



• B BOARD WAVEFORM



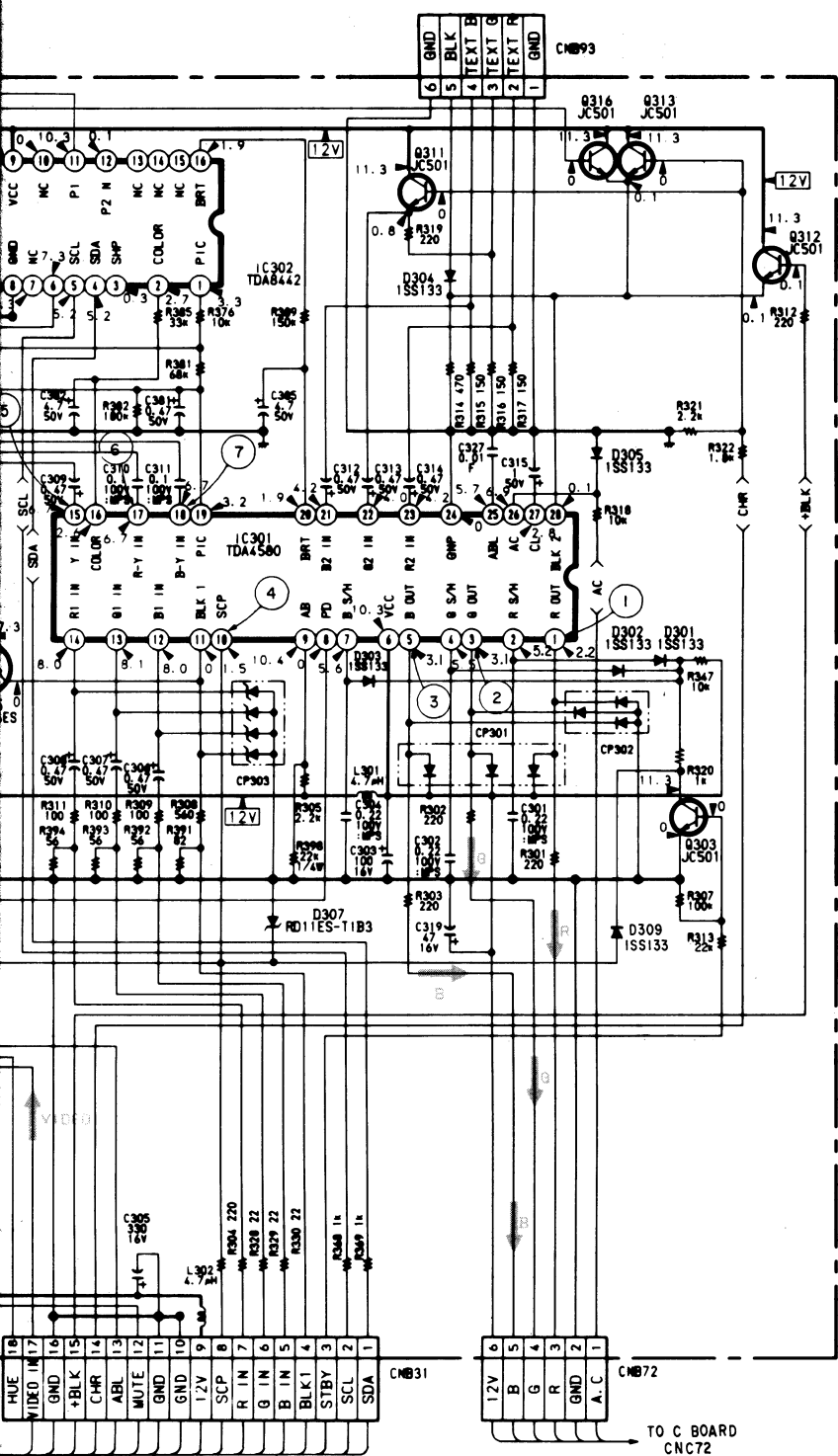
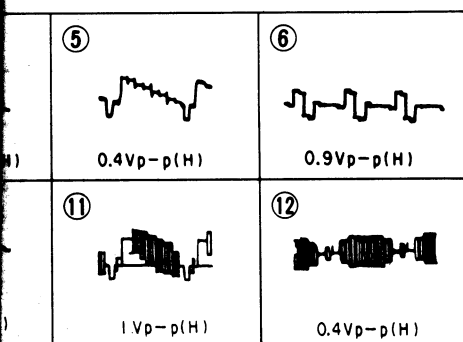
B BOARD IC331 TDA4555



MC-Service

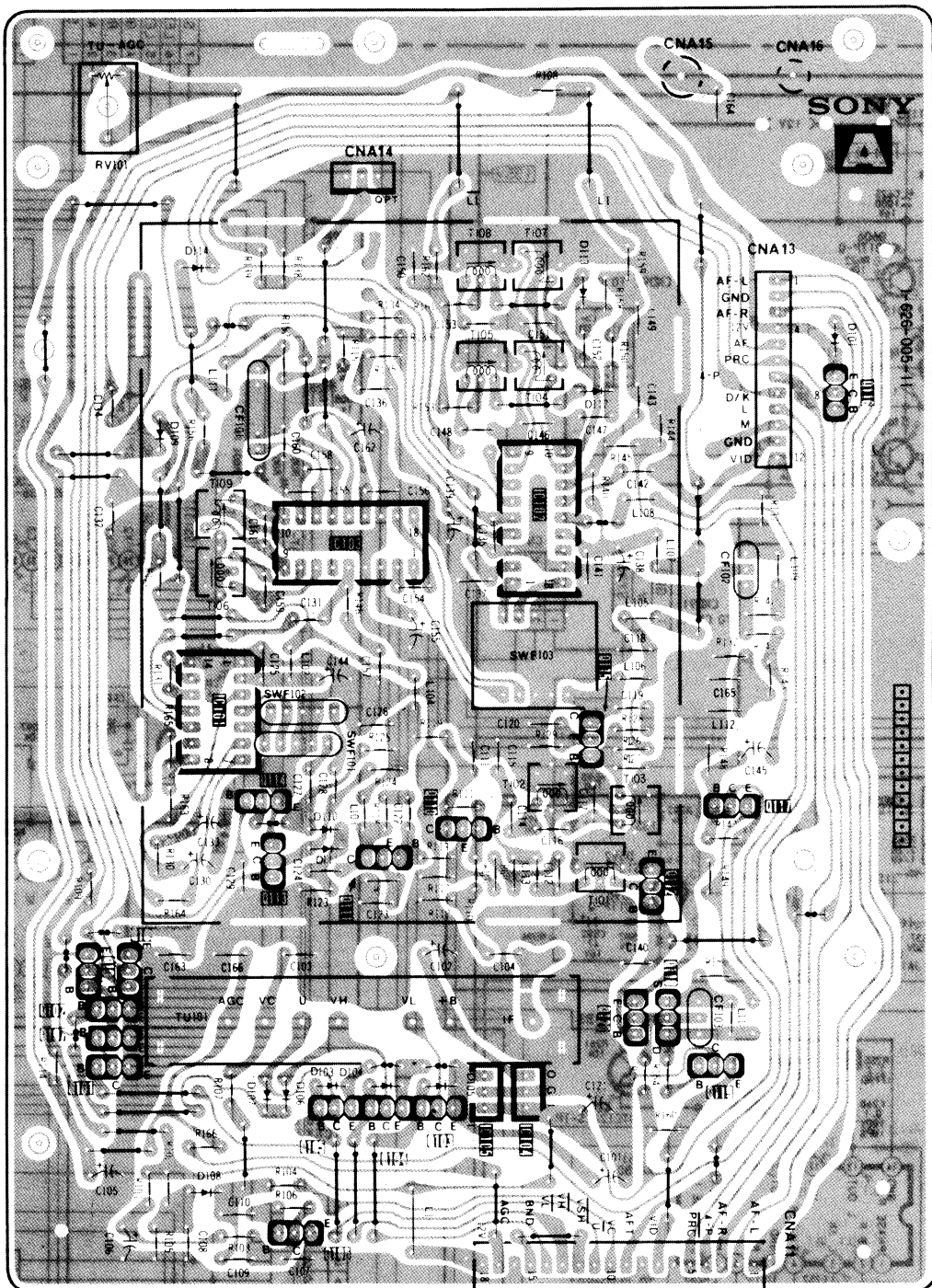
B	IC301	TDA4580	RGB INTERFACE	332	DTC124ES	3.58M SW
	302	TDA8442	D/A CONVERTOR	333	DTC124ES	4.43M SW
	331	TDA4555	CHROMA DECODER	334	JC501	CHROMA OUT-1
				335	JC501	CHROMA OUT-2
	Q302	JC501	VIDEO BUFF	336	JC501	VIDEO AMP
	303	JC501	ST BY SW	381	DTC124ES	MUTE
	305	DTC124ES	BLK SW-1	382	JC501	ABL MUTE
	306	JC501	HUE BUFF	1306	JA101	Y BUFF
	311	JC501	CHR OUT			
	312	JC501	BLK SW-2	D301	1SS133	ST BY MUTE-1
	313	JC501	CHR MIX	302	1SS133	ST BY MUTE-2
	316	JC501	PIC MUTE	303	1SS133	ST BY MUTE-3
	331	JC501	CHROMA OUT-3	304	1SS133	BLK SW





RGB INTERFACE	332	DTC124ES	3.58M SW	305	1SS133	PROTECT-1
D/A CONVERTOR	333	DTC124ES	4.43M SW	307	RD11ES-B3	PROTECT-2
CHROMA DECODER	334	JC501	CHROMA OUT-1	309	1SS133	PROTECT-3
	335	JC501	CHROMA OUT-2	331	1SS133	SYSTEM SW-1
VIDEO BUFF	336	JC501	VIDEO AMP	333	1SS133	SYSTEM SW-2
ST BY SW	381	DTC124ES	MUTE	341	1SS133	FORCE SW
BLK SW-1	382	JC501	ABL MUTE			
HUE BUFF	1306	JA101	Y BUFF			
CHR OUT						
BLK SW-2	D301	1SS133	ST BY MUTE-1			
CHR MIX	302	1SS133	ST BY MUTE-2			
PIC MUTE	303	1SS133	ST BY MUTE-3			
CHROMA OUT-3	304	1SS133	BLK SW			

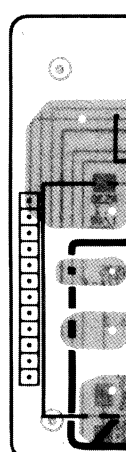
— A Board —



— A1 Board —

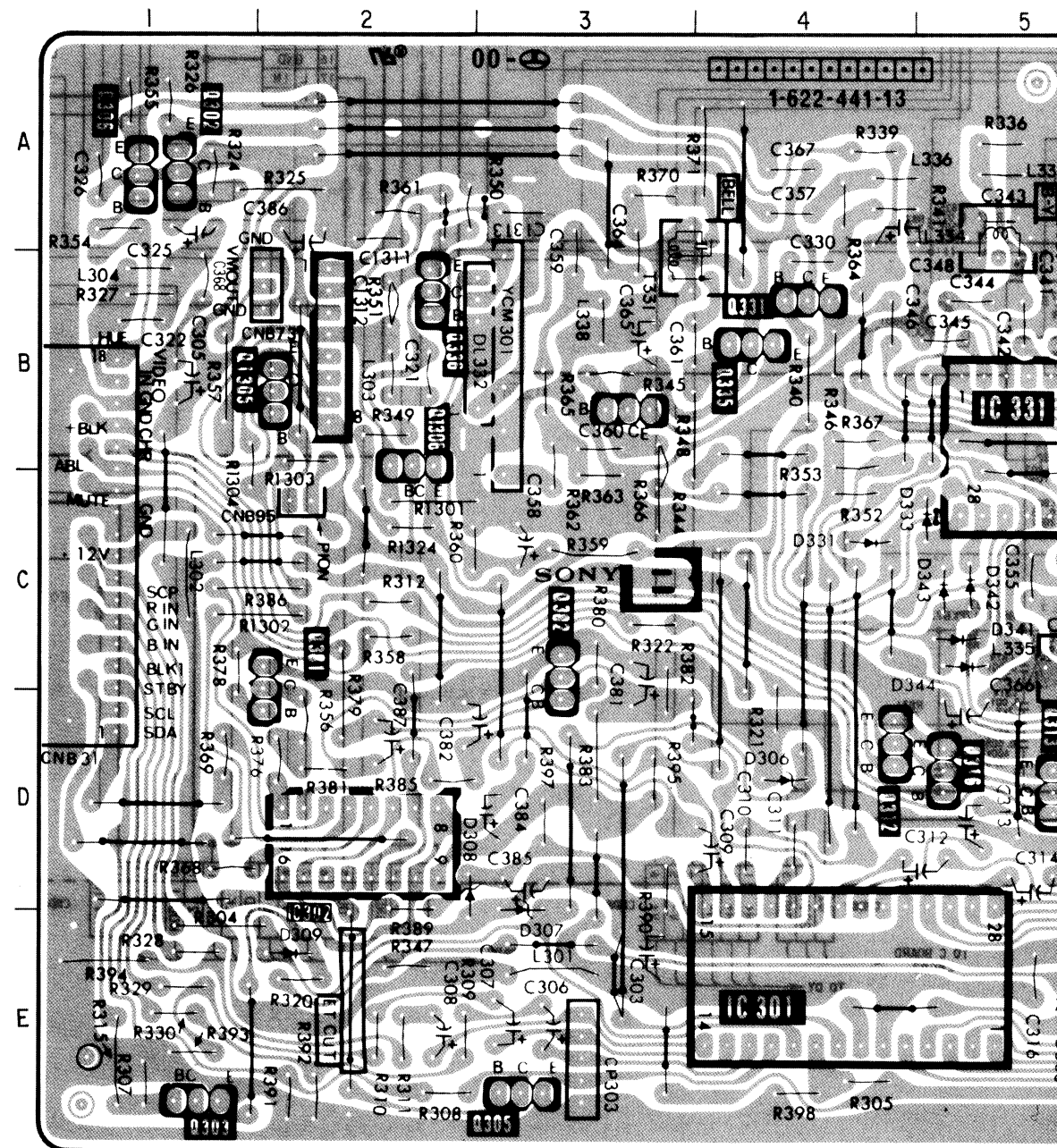


— F1 Board —



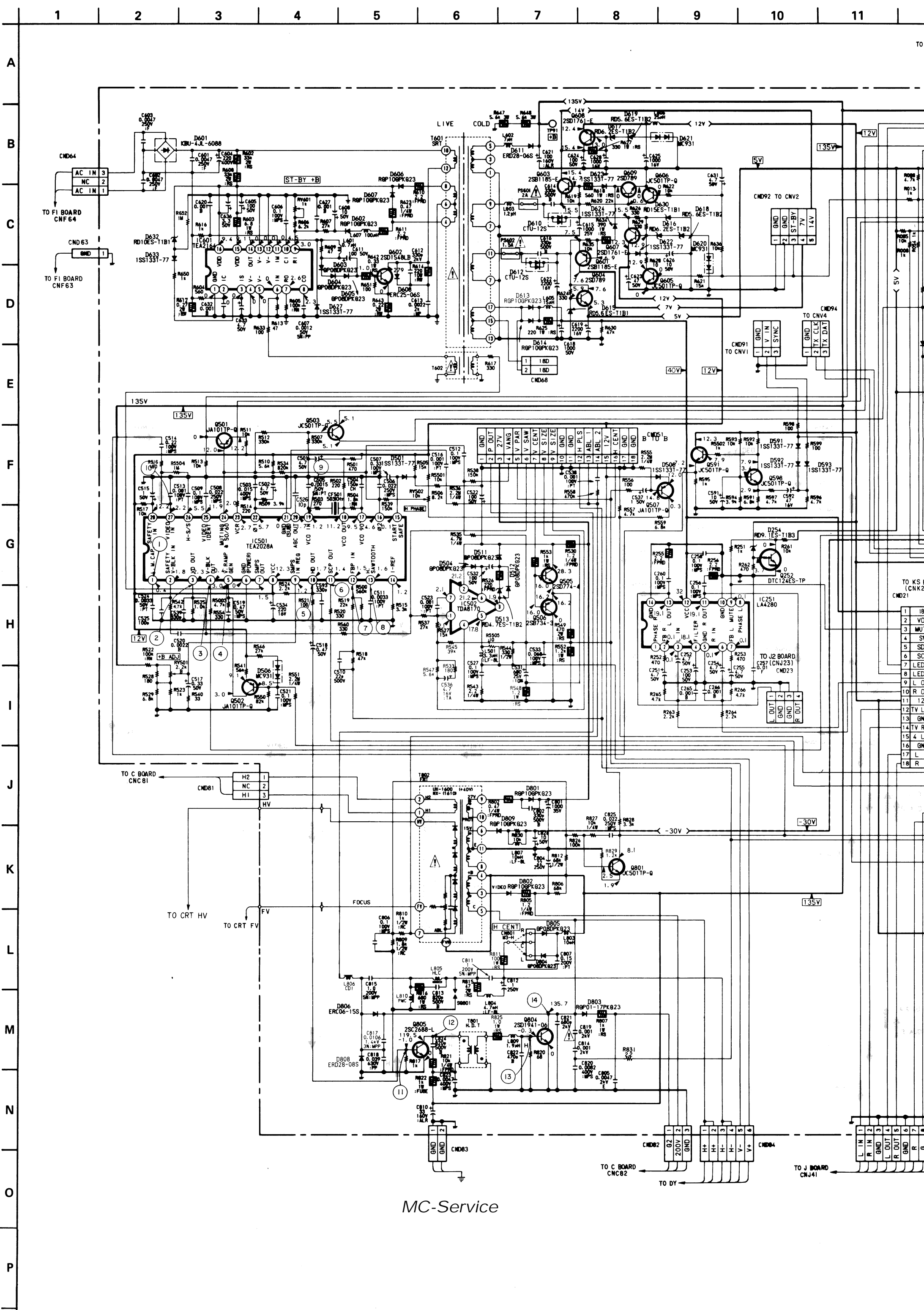
MC-Service

— B Board —





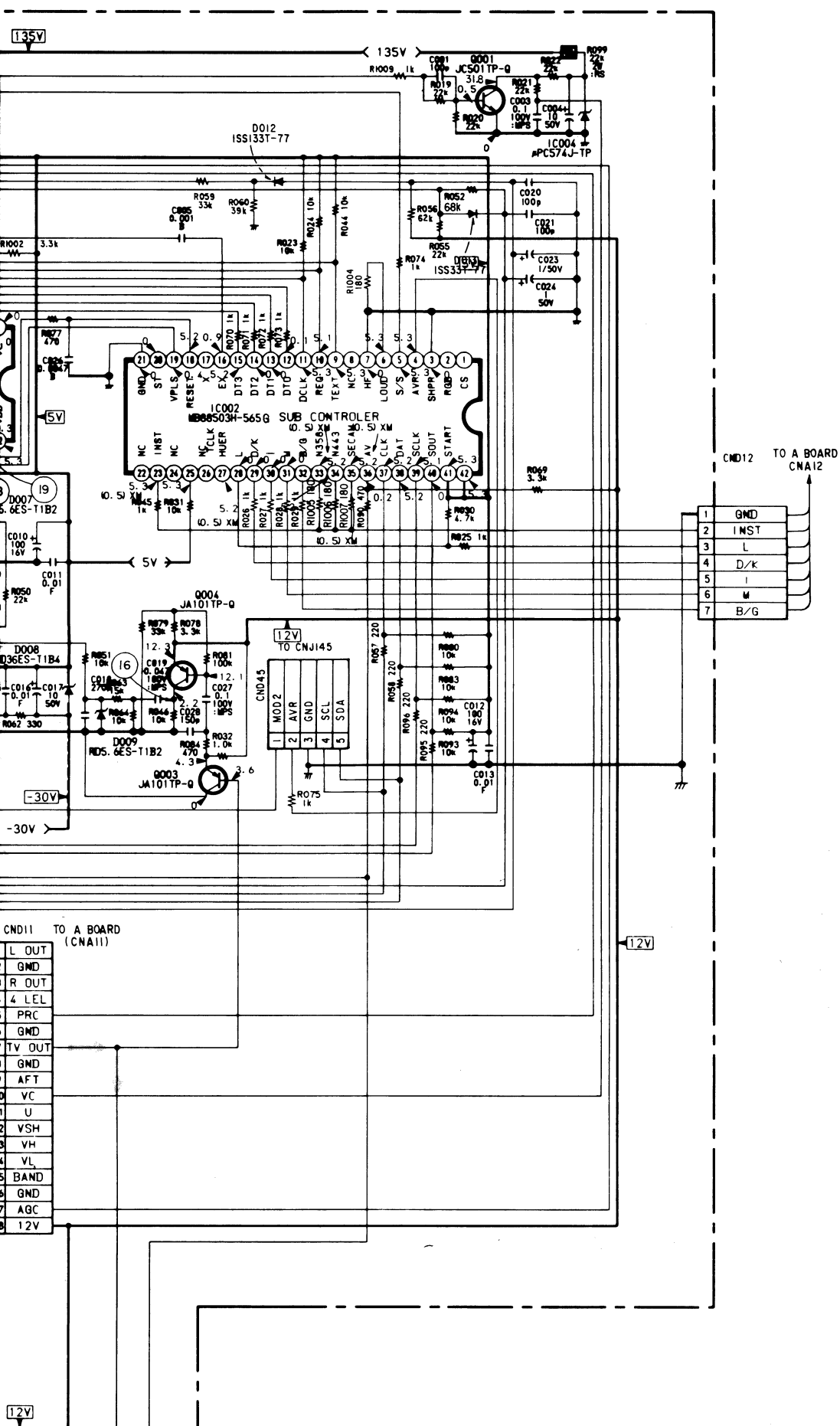




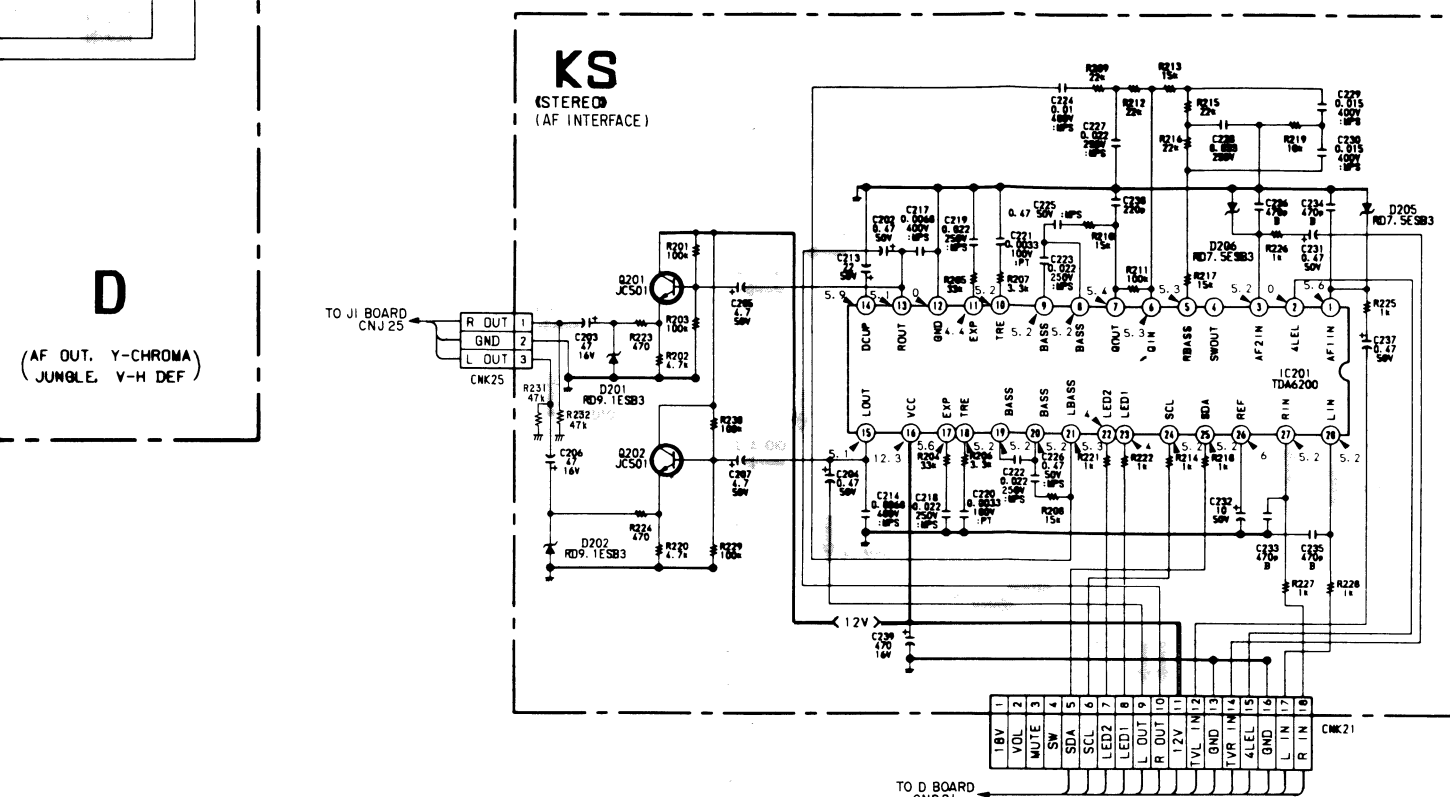
MC-Service







*MC-Service*



IC	001	WS0436-614SP	TUNING CTL
	002	WB88503H-597 G	SYSTEM CTL
	003	WS8655P	MEMORY
	004	#PCS74J	REG
	251	LA4280	AF OUT
	401	CX20061	VIDEO SW
	501	TEA2028A	JUNGLE'
	502	TDA8170	V OUT
	601	TEA2164	POWER CTL
Q	001	2SC403SP	VC AMP
	002	JA101	RESET
	003	JA101	VIDEO BUFF
	004	JA101	SYNC SEP
	252	DTCl24ES	MUTE
	501	JA101	50/60 SW
	502	JA101	V SAW
	503	JCS01	SYNC DET
	505	2SD774-4	50/60 SW
	506	2SB734-3	V SAW
	507	JA101	SYNC DET
	591	JCS01	V CENT-1
	598	JCS01	V CENT-2
	601	2SB1185-E	VLK SW
	602	2SD1548-LB	SYNC SW
	603	2SB1185-E	SYNC AMP
	604	2SD789-3	ST BY SW-1
	605	JCS01	REG OUT
	606	JCS01	ST BY SW-2
	607	2SD1761-E	+5V REG
	608	2SD1761-E	+12V REG-2
Q	609	2SD789-3	ST BY SW-5
	801	JCS01	ABL AMP
	804	2SD1941-06	H OUT
	805	2SC2688-L	H DRIVE
D	001	1SS133	KEY SCAN-1
	002	1SS133	KEY SCAN-2
	003	1SS133	KEY SCAN-3
	004	1SS133	KEY SCAN-4
	005	RD3. 9ES-B1	PROTECT-1
	007	RD5. 6ES-B2	PROTECT-2
	008	RD39ES-B4	39V ZENER
	009	RD5. 6ES-B2	PROTECT-3
	011	1SS133	KEY SCAN-5
	013	1SS133	VOL CORRECT
	254	RD7. 1ES-B3	9V ZENER
	501	1SS133	SOFT START
	504	GP08DPKG23	PONP UP
	506	MC931	PROTECT-4
	508	1SS133	BLK SW
	511	GP08DPKG23	PROTECT-11
	512	GP08DPKG23	PROTECT-12
	513	RD4. 7ES-B2	PROTECT-10
	591	1SS133	SYNC SW-1
	592	1SS133	SYNC SW-2
	593	1SS133	SYNC SW-3
	601	KBU4JL-6088	AC RECT
	602	RGPI0GPKG23	PROTECT-5
	603	GP08DPKG23	REG DRIVE-1
	604	GP08DPKG23	REG DRIVE-2
	605	GP08DPKG23	REG DRIVE-3
D	606	RGPI0GPKG23	REF RECT-1
	607	RGPI0GPKG23	REF RECT-2
	608	ERC25-06S	PULSE CLIPPER
	610	CTU-12S	+14V RECT
	611	ERD28-06S	+135V RECT
	612	CTU-12S	+7V RECT
	613	RGPI0GPKG23	AF RECT
	614	RGPI0GPKG23	AF RECT
	615	RD5. 6ES-B1	REG-4
	616	RD6. 2ES-B2	REG-1
	617	RD6. 2ES-B2	REG-2
	618	RD5. 6ES-B2	REG-3
	619	RD5. 6ES-B2	REG-3
	620	MC931	PROTECT-6
	621	MC931	PROTECT-7
	622	1SS133	PROTECT-8
	623	1SS133	STBY SW-1
	624	1SS133	STBY SW-2
	627	1SS133	PROTECT-9
	630	RD15ES-B1	REG
	632	RD10ES-B2	PROTECT
	633	1SS133	PROTECT
	801	RGPI0GPKG23	27V RECT
	802	RGPI0GPKG23	200V RECT
	803	RGPO1-17PKG23	G2RECT
	804	GP08DPKG23	H CENT-1
	805	GP08DPKG23	H CENT-2
	806	ERC06-1SS	H DANPER-1
	808	ERD28-08S	PIN DANPER
	809	RGPI0GPKG23	-30V RECT

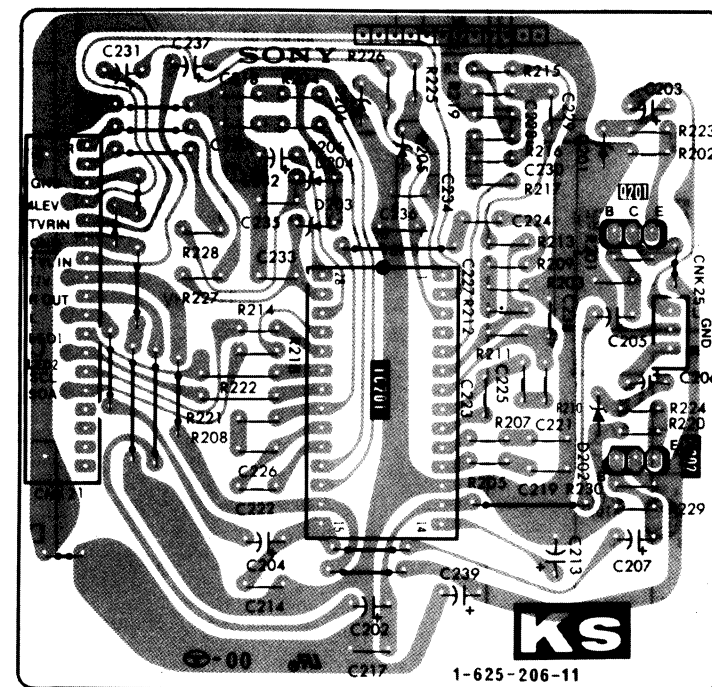
Ks	IC201	TDA6200	AF INTERFACE
	Q201	JC501	R BUFF
	202	JC501	L BUFF
	D201	RD9.1ESB3	PROTECT-1
	202	RD9.1ESB3	PROTECT-2
	205	RD7.5ESB3	PROTECT-5
	206	RD7.5ESB3	PROTECT-6

**Ks**

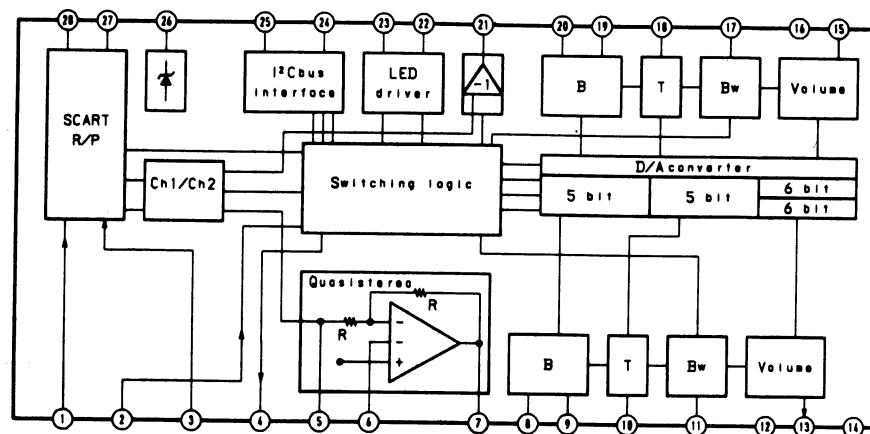
(AF INTERFACE)

**D**[AF OUT, Y-CHROMA,  
JUNGLE, V-H DEF]

— KS Board —

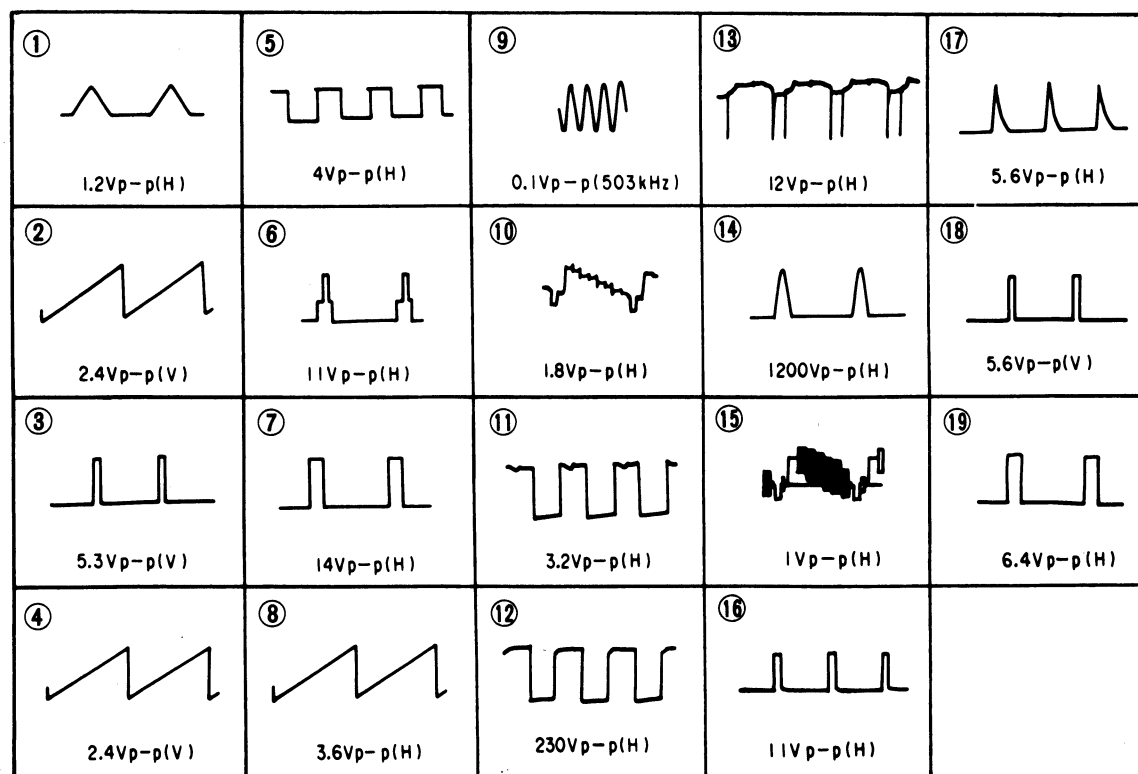


KS BOARD IC201 TDA6200

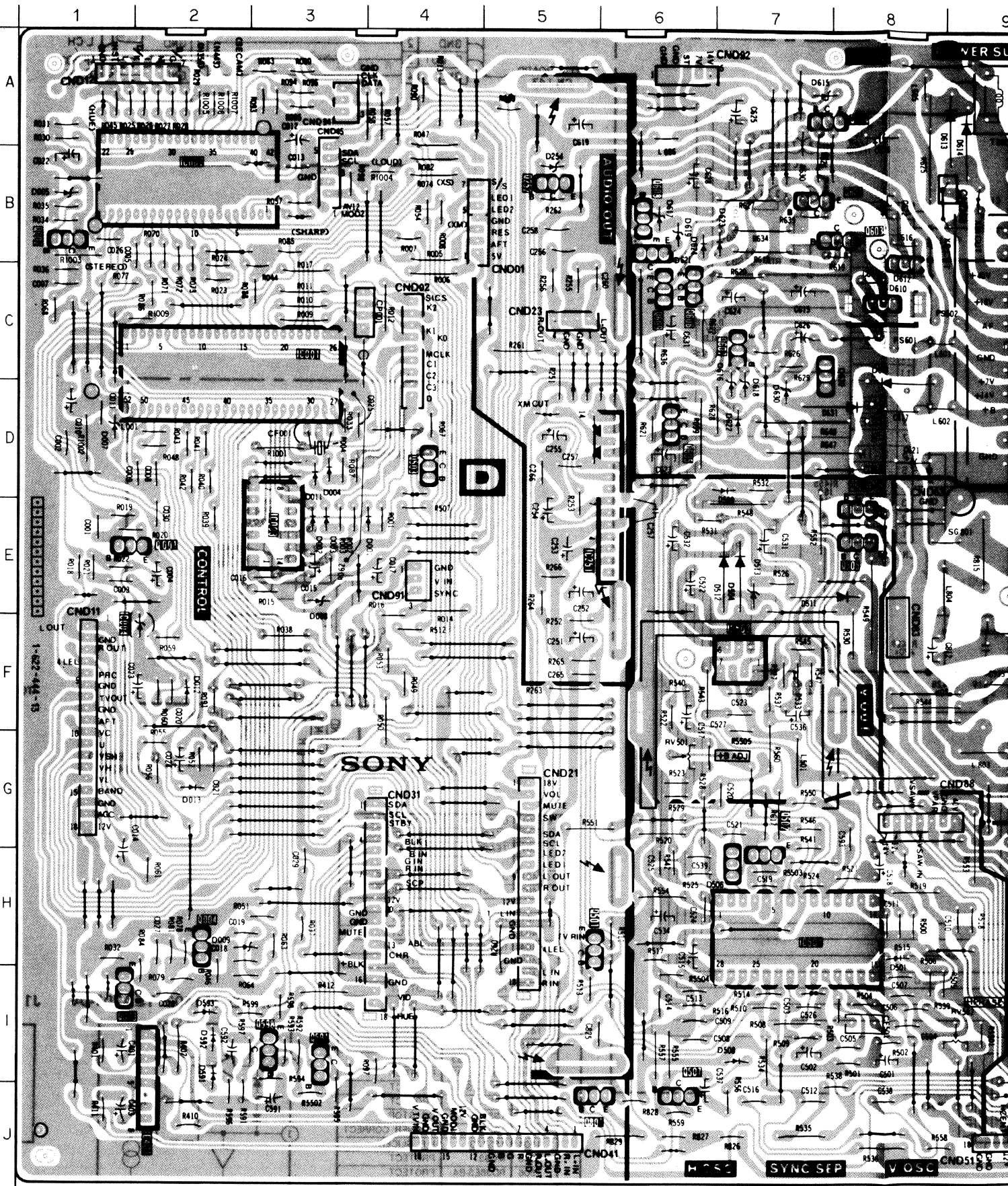


MC-Service

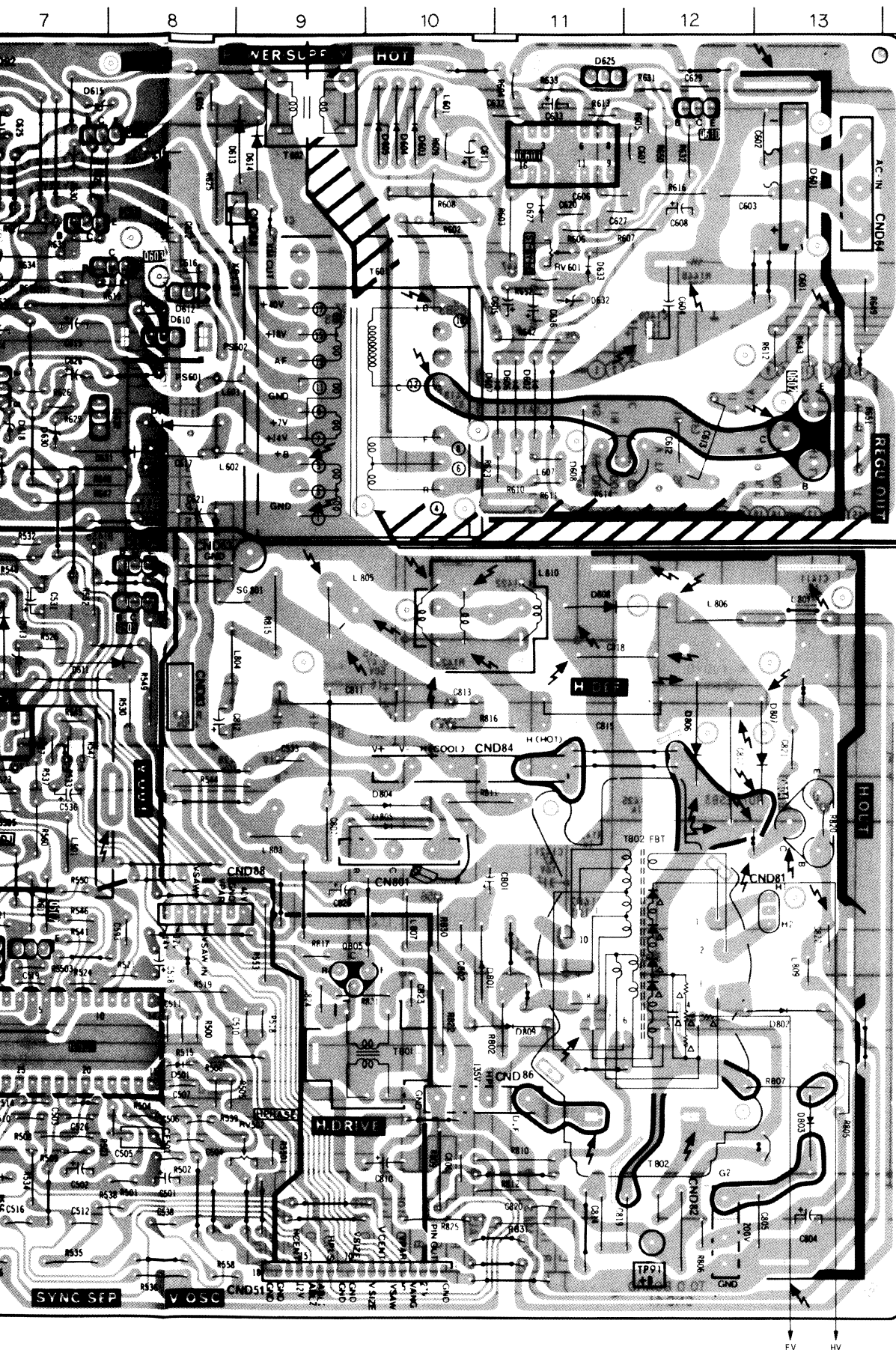
## ● D BOARD WAVEFORM



— D Board —

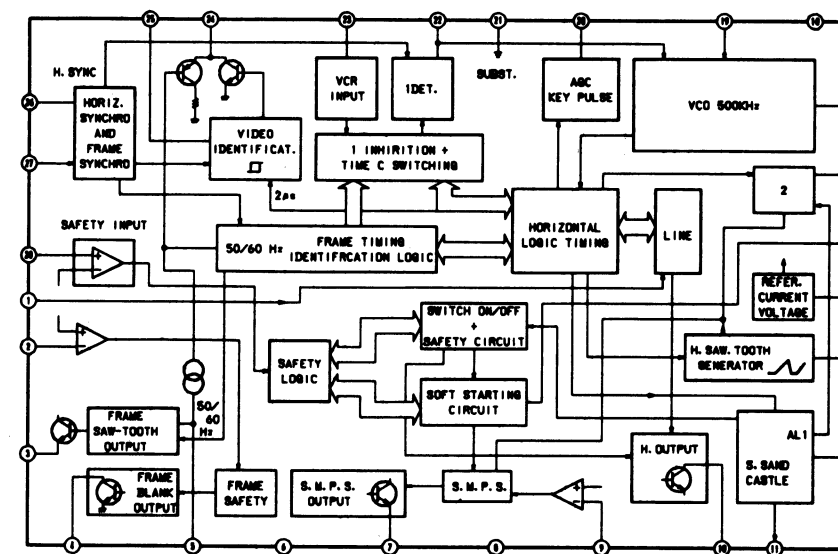




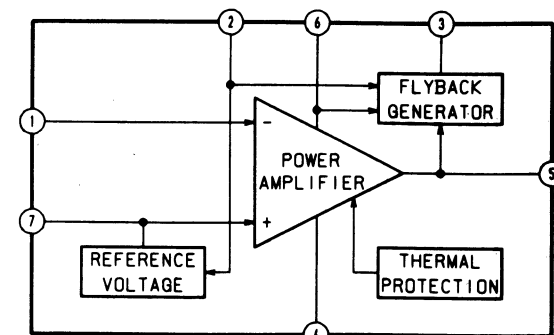


IC		DIODE	
IC001	D-3	D001	E-4
IC002	B-2	D002	E-3
IC003	E-3	D003	E-3
IC004	F-2	D004	D-3
IC251	E-6	D005	B-1
IC401	J-2	D007	D-1
IC501	H-7	D008	F-3
IC502	F-7	D009	I-3
IC601	B-11	D011	E-3
		D012	F-2
		D013	G-2
TRANSISTOR		D254	B-5
Q001	E-2	D501	I-8
Q002	B-1	D504	E-7
Q003	I-2	D506	H-7
Q004	H-2	D508	I-7
Q252	B-6	D511	F-8
Q501	H-6	D512	E-7
Q502	H-7	D513	E-7
Q503	D-4	D591	J-2
Q505	E-8	D592	I-2
Q506	E-8	D593	I-2
Q507	J-6	D601	B-13
Q591	I-3	D602	C-11
Q598	I-3	D603	A-10
Q601	B-8	D604	A-10
Q602	D-13	D605	A-10
Q603	B-8	D606	C-11
Q604	A-8	D607	C-11
Q605	D-6	D608	D-11
Q606	C-6	D610	C-8
Q607	C-7	D611	D-8
Q608	B-6	D612	C-8
Q609	C-6	D613	A-9
Q801	J-6	D614	B-9
Q804	G-13	D615	A-8
Q805	H-10	D616	D-7
		D617	B-6
		D618	D-7
		D619	B-6
		D620	D-8
		D621	C-6
		D622	D-7
		D623	C-7
		D624	C-7
		D627	B-11
		D630	D-7
		D632	C-11
		D633	C-11
		D801	H-11
		D802	H-13
		D803	I-13
		D804	G-10
		D805	G-10
		D806	F-12
		D808	E-12
		D809	H-11
		VARIABLE RESISTOR	
		RV501	G-6
		RV502	I-9
		RV601	B-11

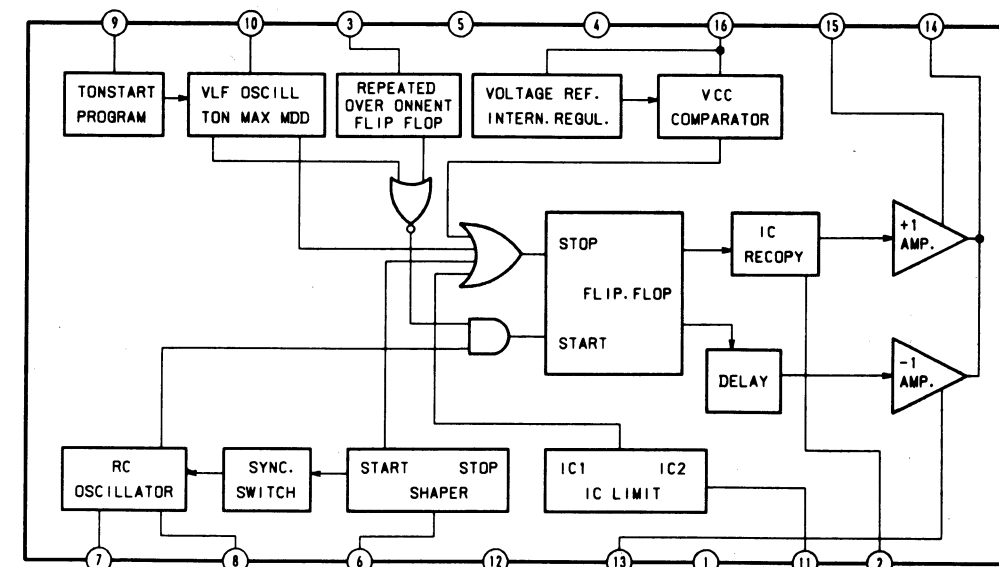
**D BOARD IC501 TEA2028A**



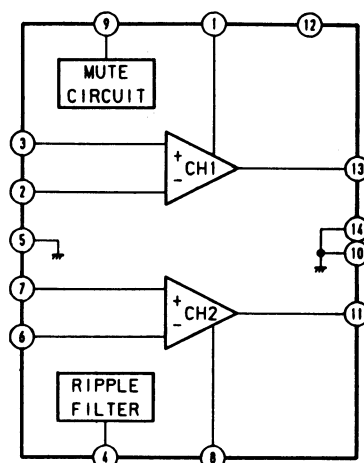
**D BOARD IC502 TDA8170**



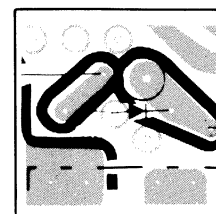
**D BOARD IC601 TEA2164**



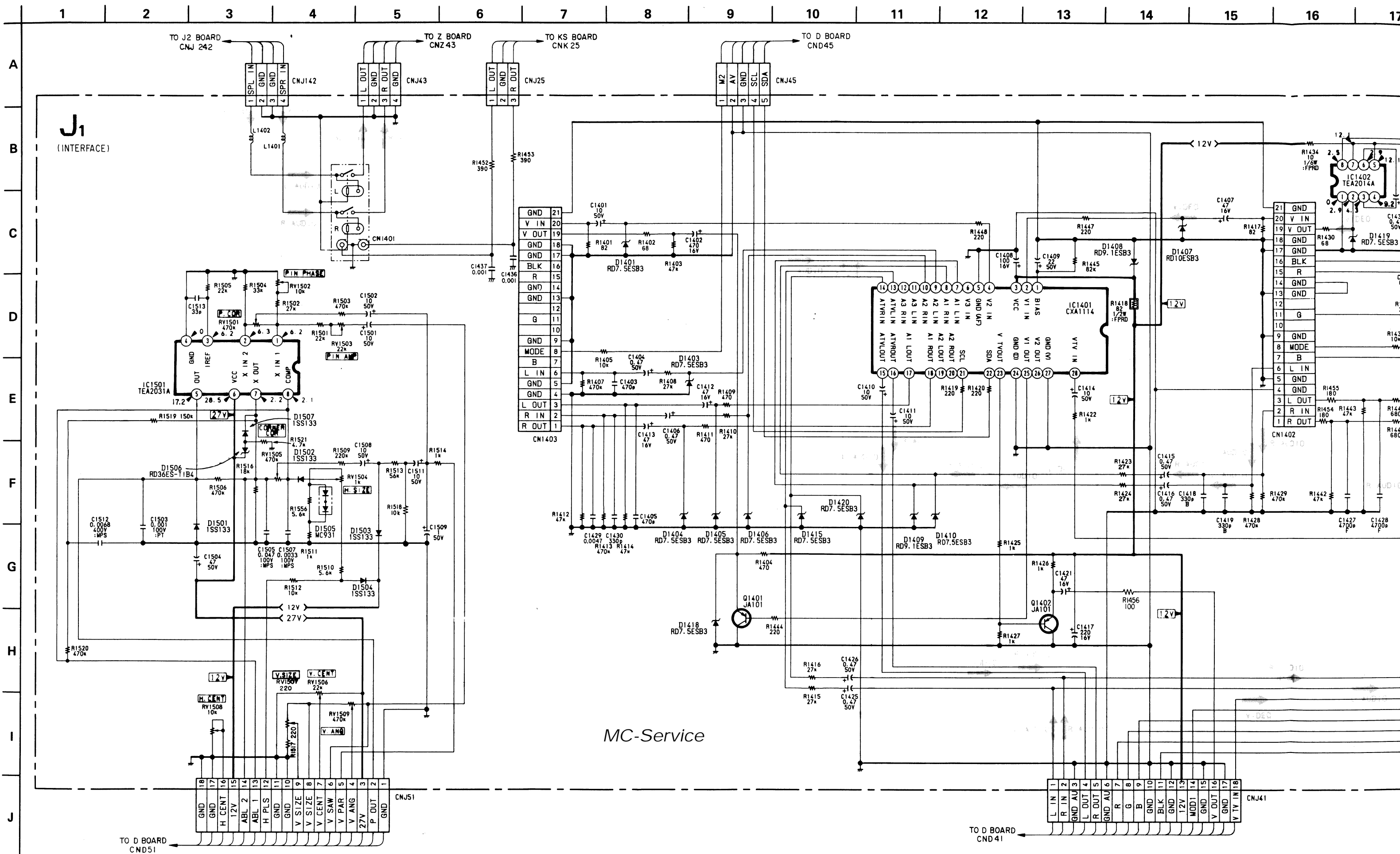
**D BOARD IC251 LA4280**

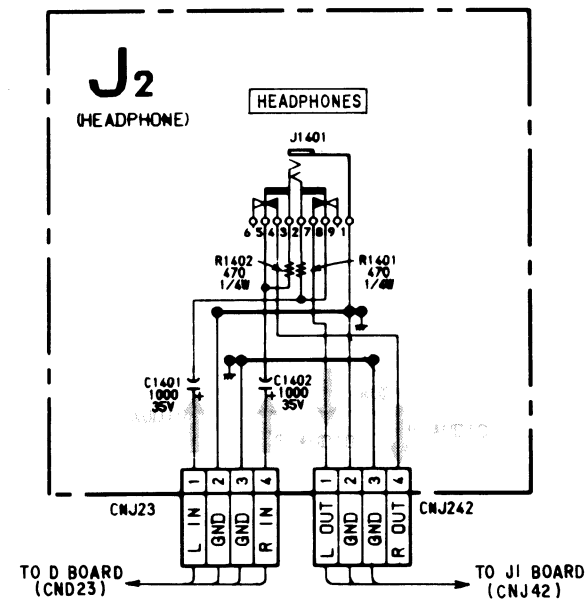
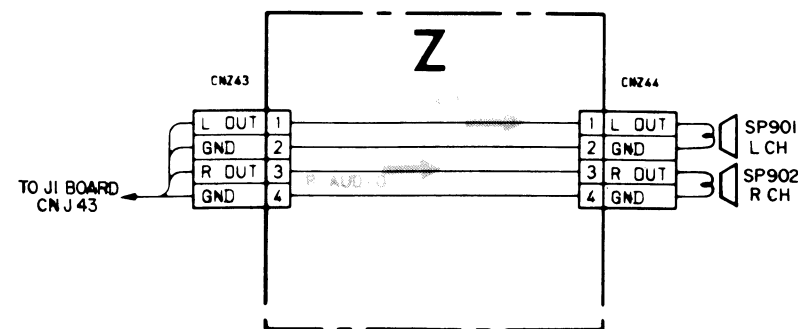
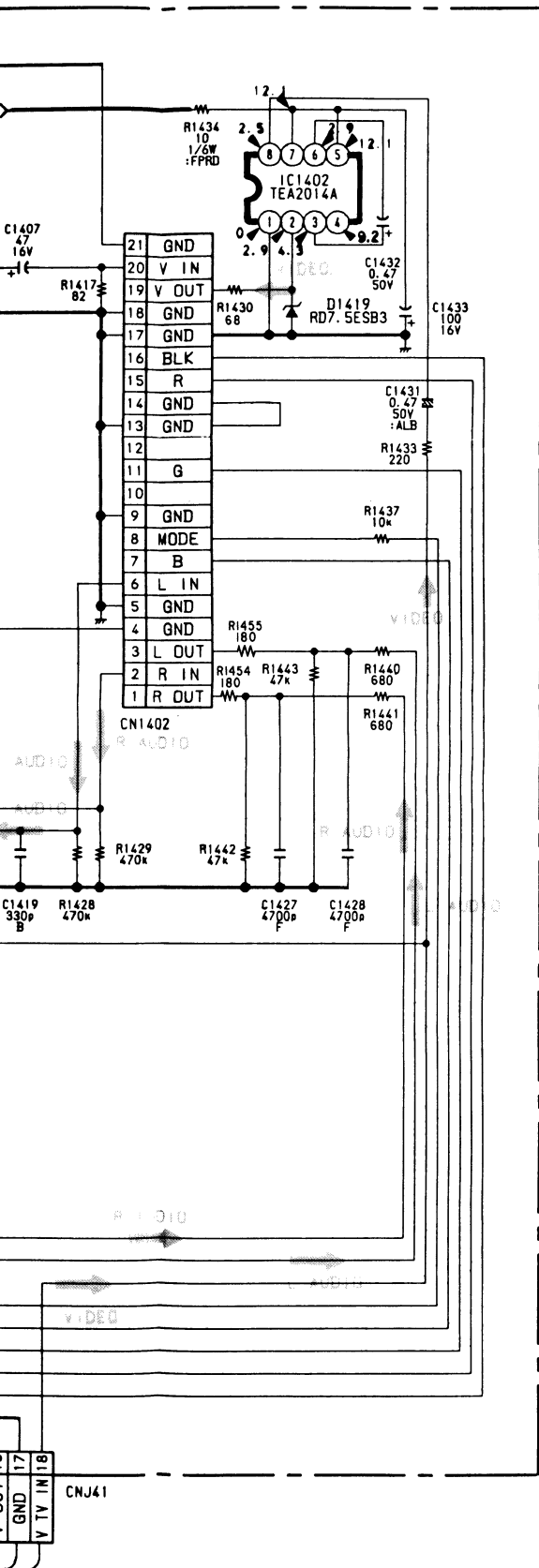


*MC-Service*

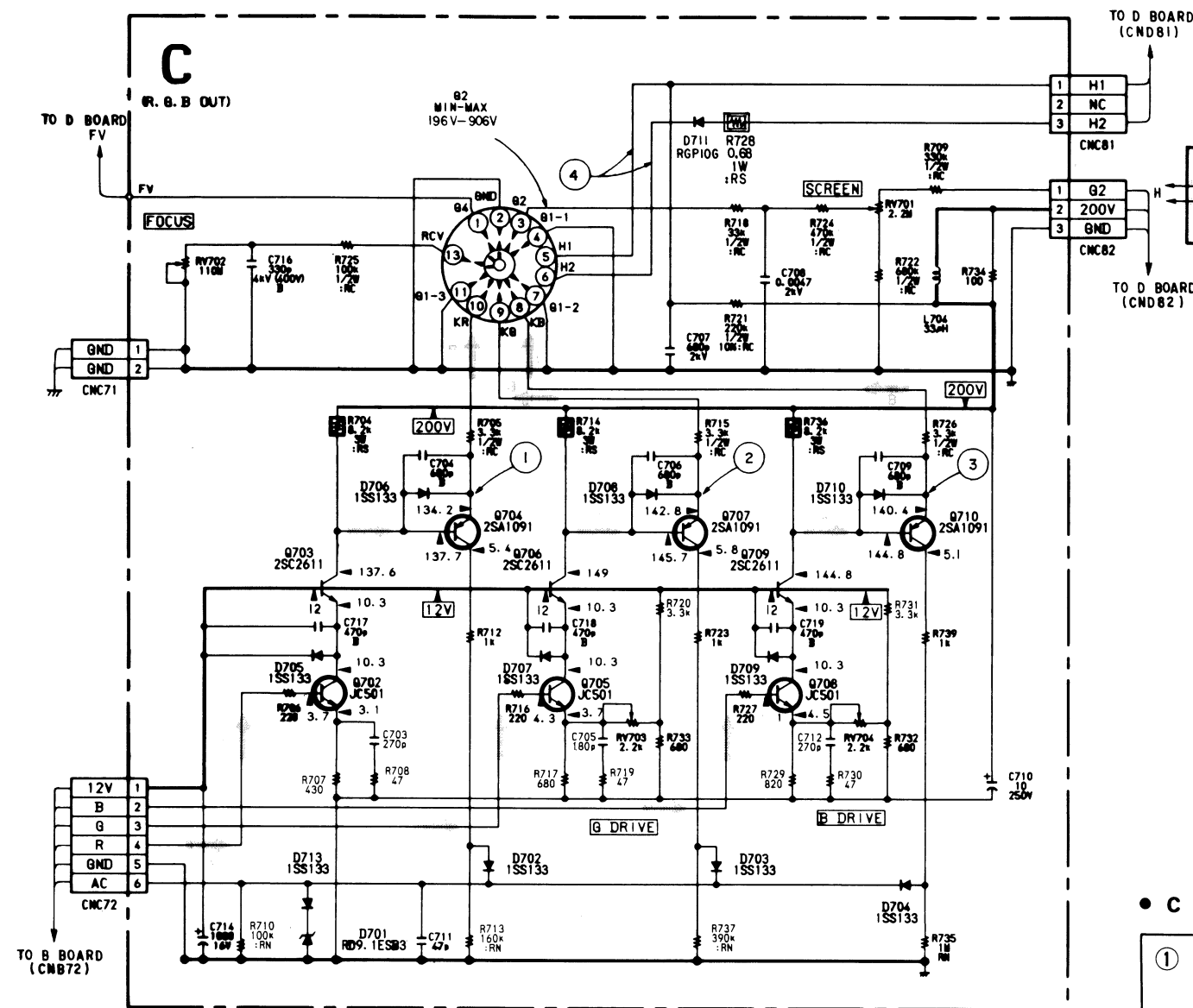
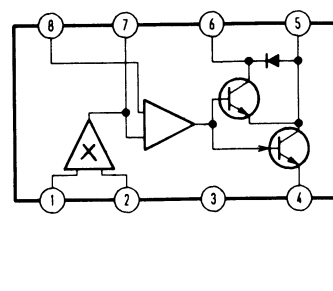
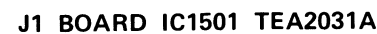
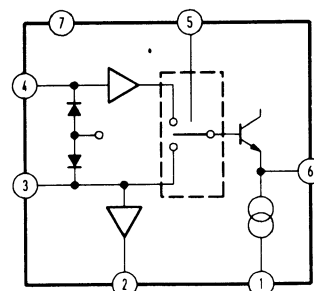
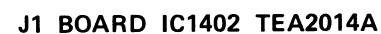


**NOTE:**  
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.





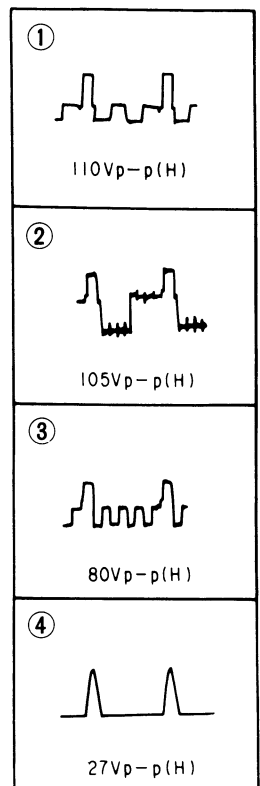
IC1401	CXA1114	AV INTERFACE
1402	TEA2014A	VIDEO SWITCHING
1501	TEA2031A	PIN AMP
Q1401	JA101	VIDEO BUFF
1402	JA101	VIDEO BUFF
D1401	RD7.5ES-B3	PROTECT
1403	RD7.5ES-B3	PROTECT
1404	RD7.5ES-B3	PROTECT
1405	RD7.5ES-B3	PROTECT
1406	RD7.5ES-B3	PROTECT
1407	RD10ES-B3	PROTECT
1408	RD9.1ES-B3	9V REG
1409	RD9.1ES-B3	PROTECT
1410	RD9.1ES-B3	PROTECT
1415	RD7.5ES-B3	PROTECT
1418	RD7.5ES-B3	PROTECT
1419	RD7.5ES-B3	PROTECT
1420	RD7.5ES-B3	PROTECT
1501	1SS133	PROTECT
1502	1SS133	DC STOP
1503	1SS133	CORNER CORRECT
1504	1SS133	HP SLICER
1505	MC931	PROTECT
1506	RD36ES-B4	PROTECT
1507	1SS133	PROTECT

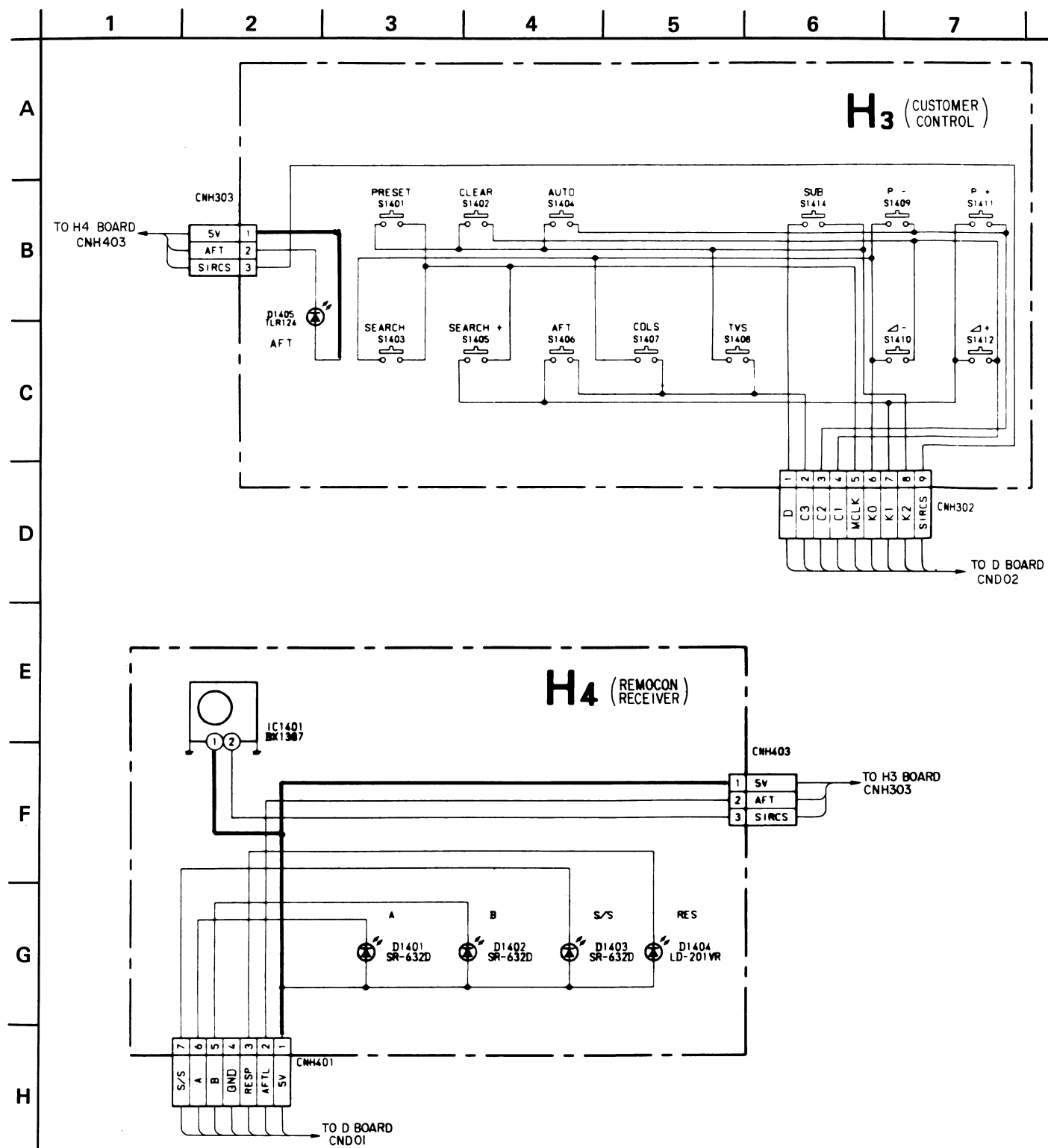


*MC-Service*

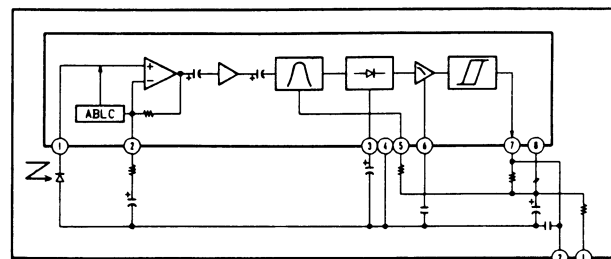
C	702	JC501	R AMP
	703	2SC2611	R OUT
	704	2SA1091	R AC AMP
	705	JC501	G AMP
	706	2SC2611	G OUT
	707	2SA1091	G AC AMP
	708	JC501	B AMP
	709	2SC2611	B OUT
	710	2SA1091	B AC AMP
	D701	RD9,1ES-B3	PROTECT-1
	702	1SS133	AC MIX-1
	703	1SS133	AC MIX-2
	704	1SS133	AC MIX-3
	705	1SS133	PROTECT-2
	706	1SS133	PROTECT-3
	707	1SS133	PROTECT-4
	708	1SS133	PROTECT-5
	709	1SS133	PROTECT-6
	710	1SS133	PROTECT-7
711	RGPI06RG23	PROTECT-8	
713	1SS133	PROTECT-9	

- C BOARD WAVEFORM





**H4 BOARD IC1401 BX-1387**



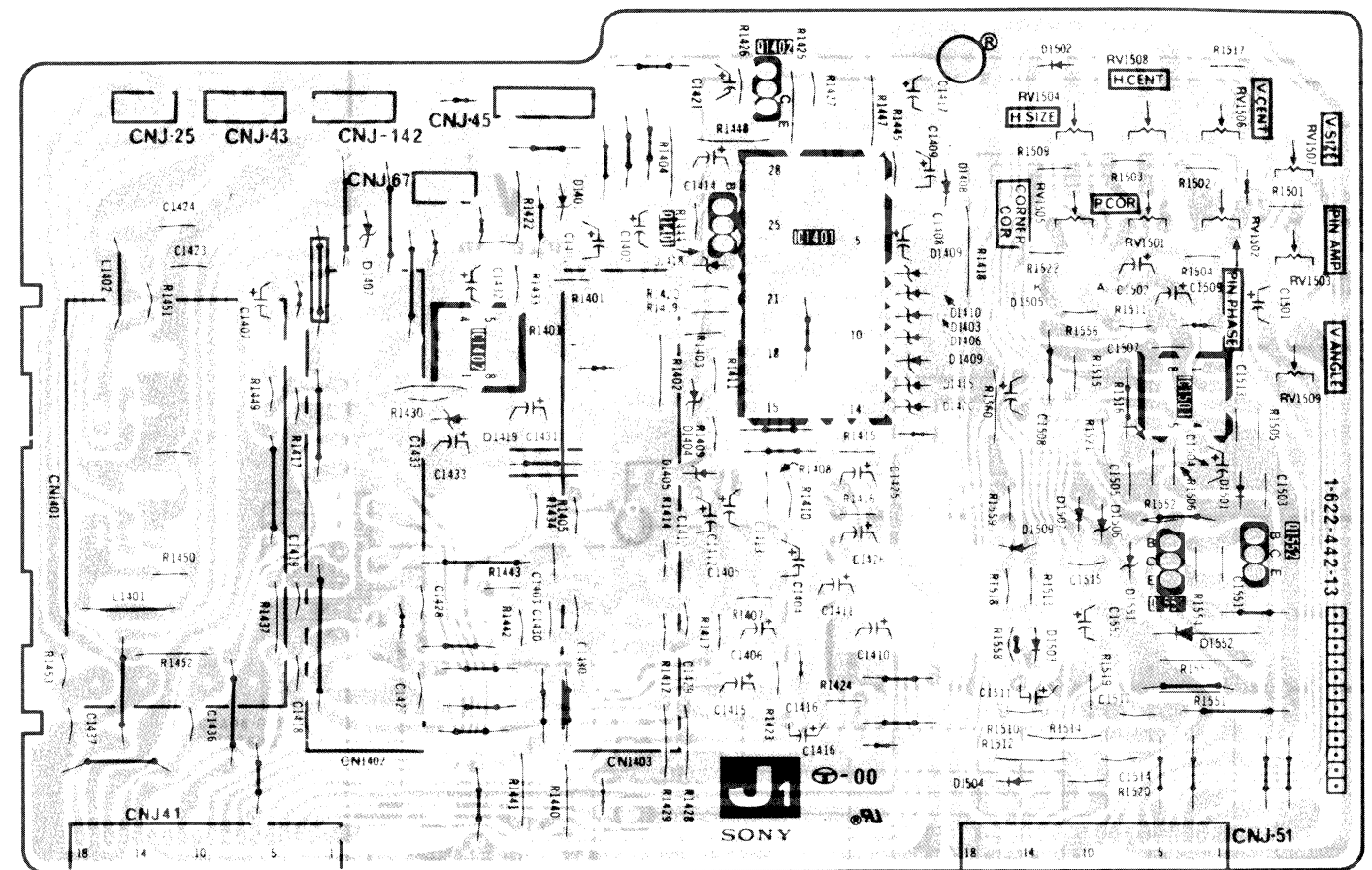
H4	IC1401	BX1387	REMOCON RECIEVER
	D1401	SR632D	A
	1402	SR632D	B
	1403	SR632D	SPACE SOUND
	1404	SR632D	RESP

**J1** [INTERFACE]

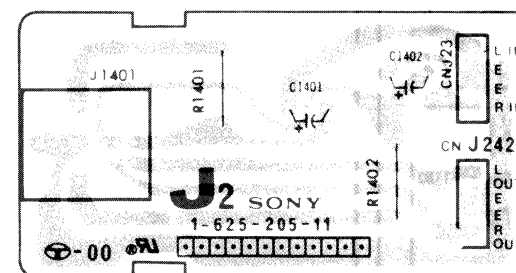
**J2** [HEADPHONE JACK]

**Z** [CONNECTOR]

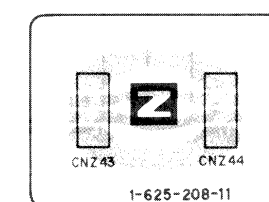
— J1 Board —



– J2 Board –



**– Z Board –**



*MC-Service*



**J1**

[INTERFACE]

**J2**

[HEADPHONE JACK]

**Z**

[CONNECTOR]

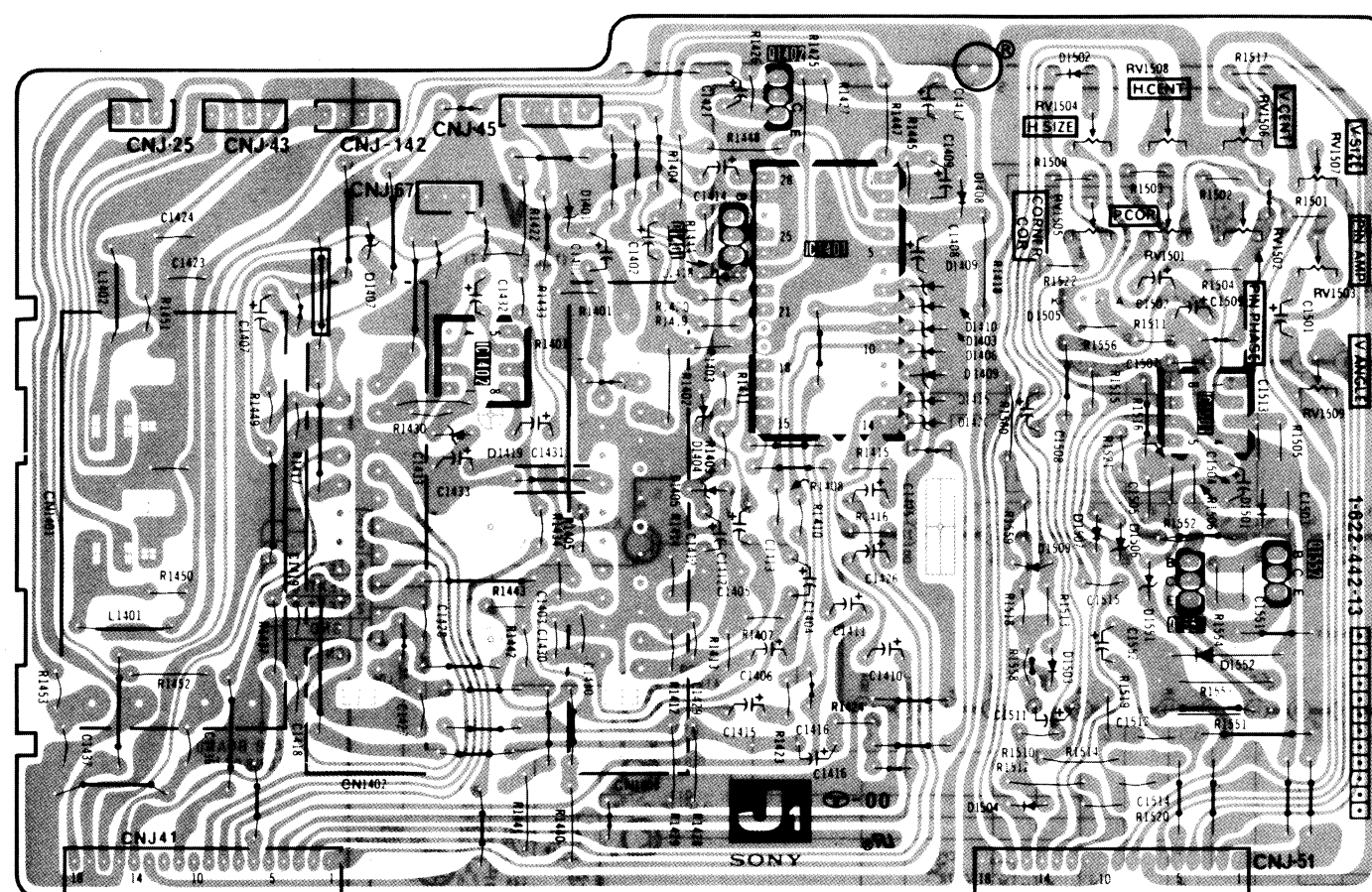
**C**

[R-G-B OUT]

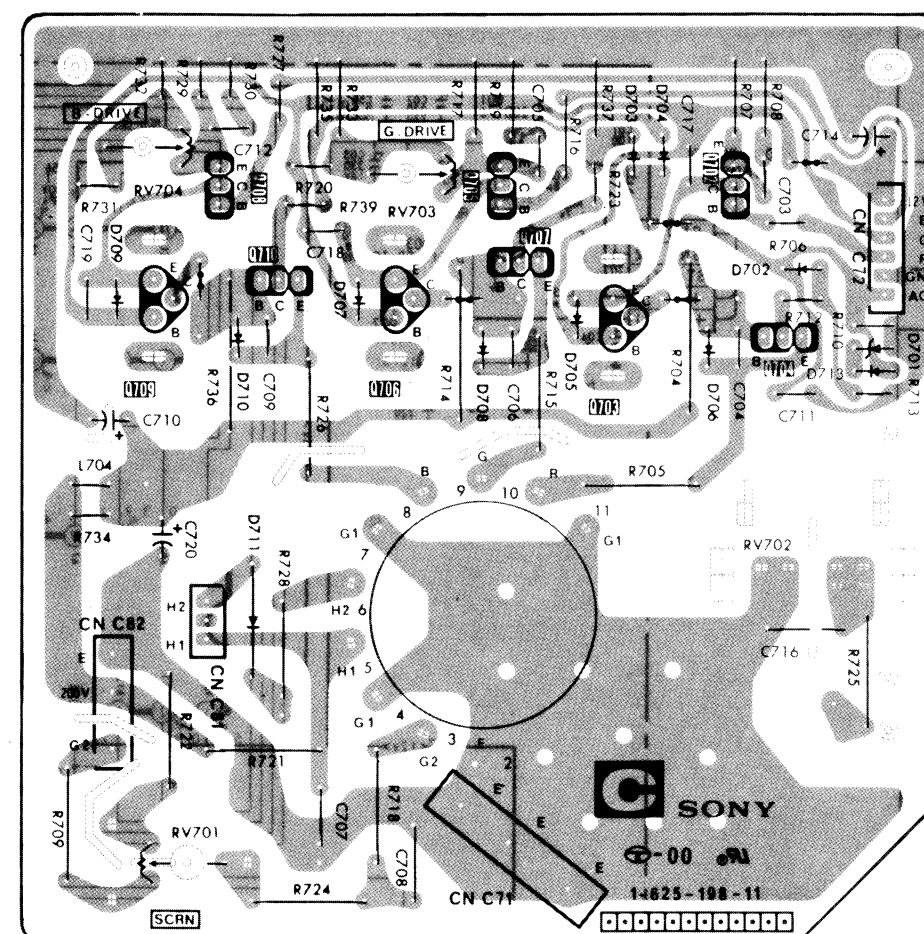
**H3**[CUSTOMER  
CONTROL]**H4**

[REMOCON RECEIVER]

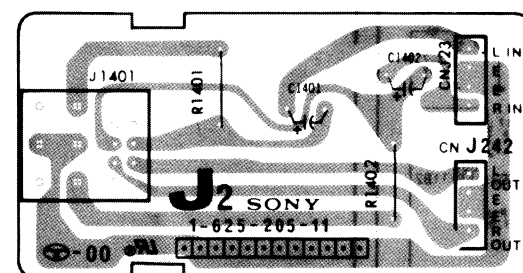
— J1 Board —



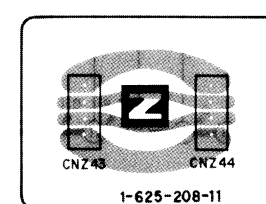
— C Board —



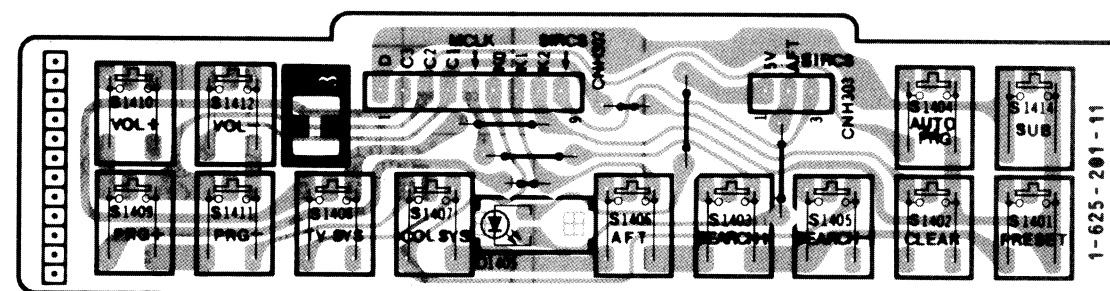
— J2 Board —



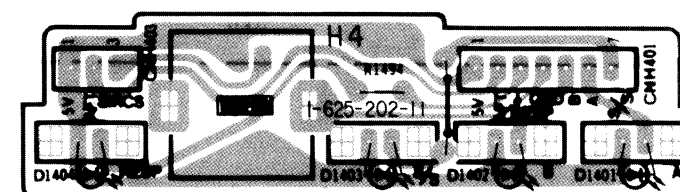
— Z Board —



— H3 Board —

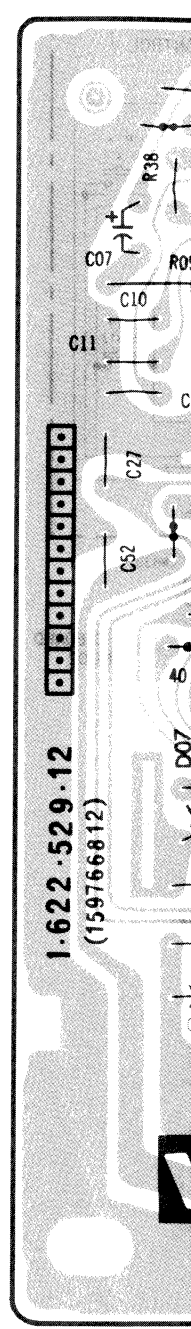


— H4 Board —



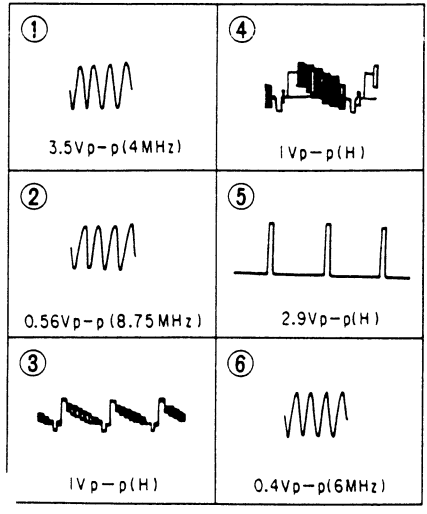
MC-Service



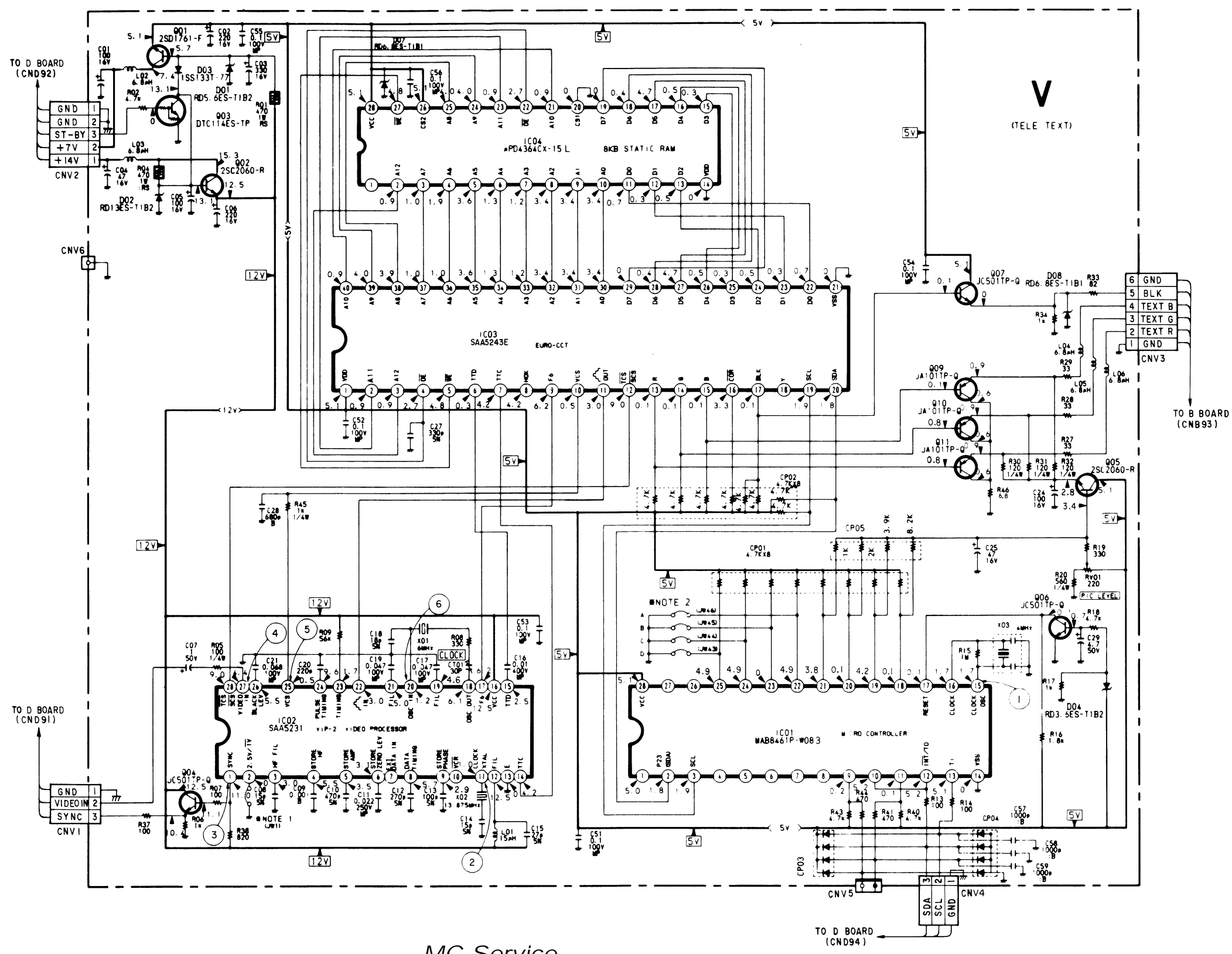


1-622-529-12  
(159766812)

• V BOARD WAVEFORM



IC 01	MAB8461P-W083	MICRO CTL
02	SDA5231	VIDEO PROCESSOR
03	SDA5243E	EURO CCT
04	PD4364CX-15L	8KB STATIC RAM
Q 01	2SD1761-F	5V REG
02	2SC2060-R	12V REG
03	DTC114ES-TP	ST BY
04	JCS01TP-Q	SYNC BUFF
05	2SC2060-R	PIC LEVEL
06	JCS01TP-Q	RESET
07	JCS01TP-Q	BLK OUT
09	JA101TP-Q	B OUT
10	JA101TP-Q	G OUT
11	JA101TP-Q	R OUT
D 01	RD5.6ES-B2	5V REG
02	RD13ES-B2	12V REG
03	1SS133	ST BY
04	RD3.6ES-B2	RESET
07	RD6.8ES-B2	PROTECT-1
08	RD6.8ES-B1	PROTECT-2

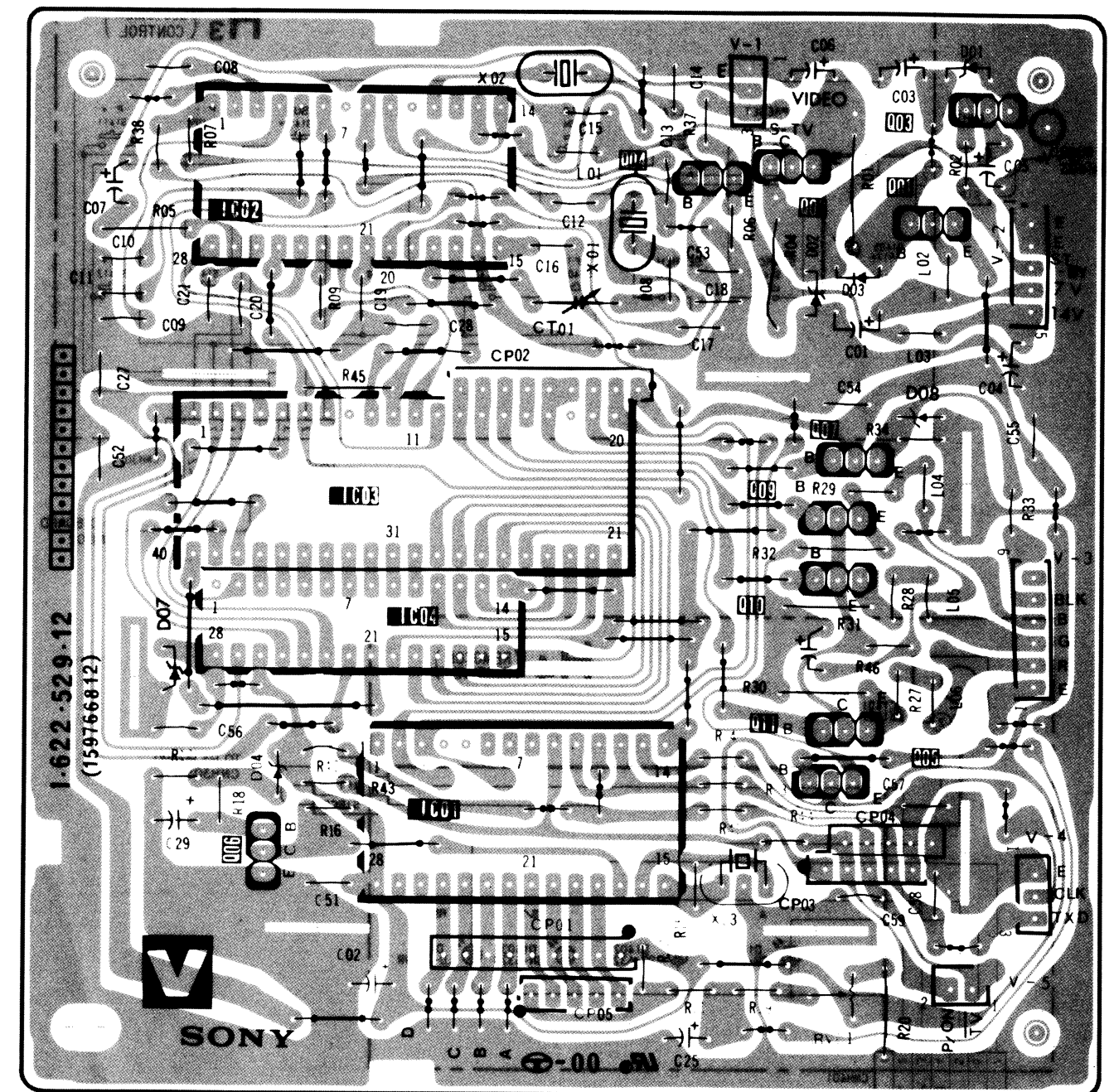
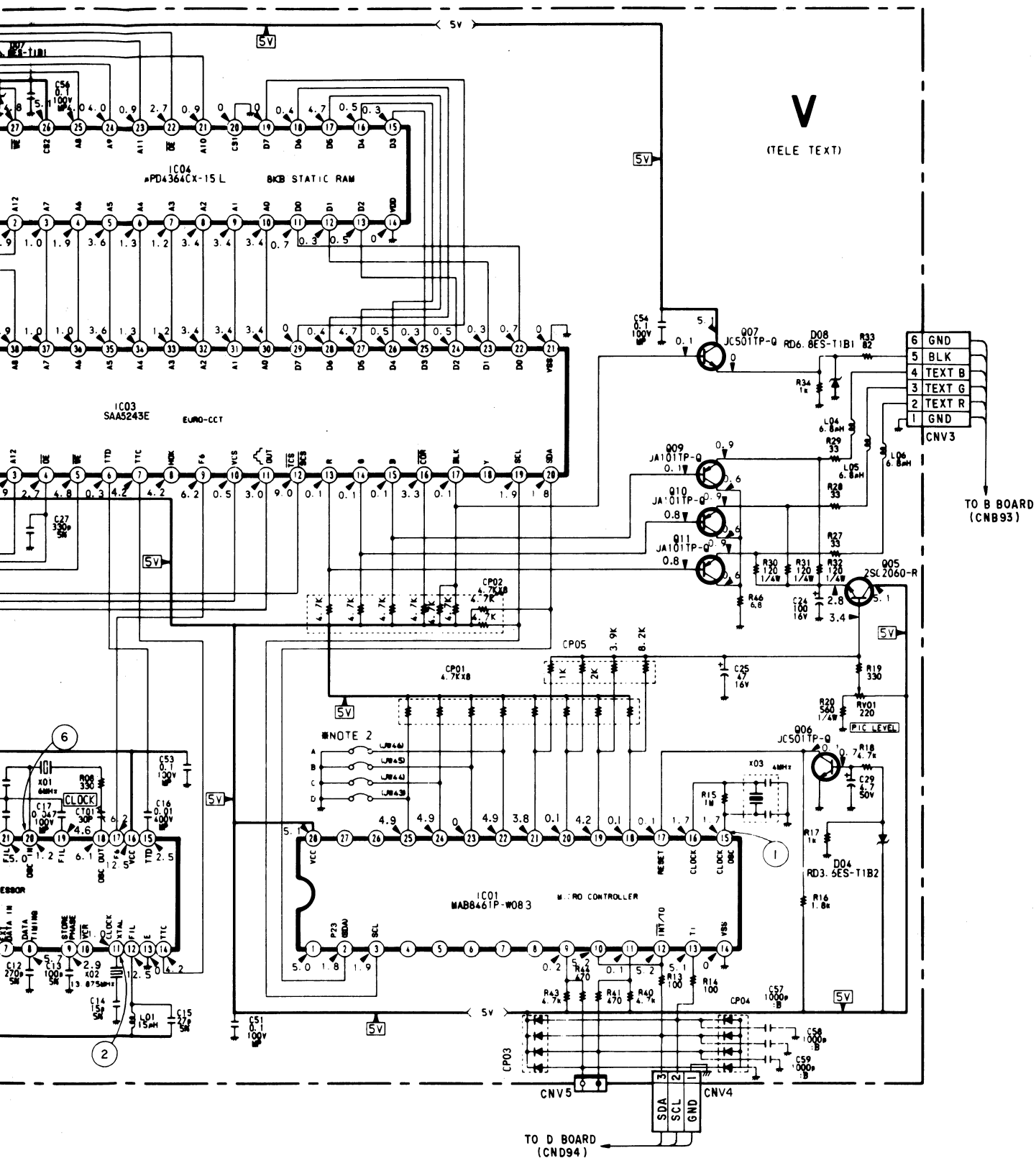


MC-Service



[TELETEXT]

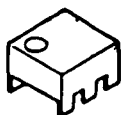
- V Board -



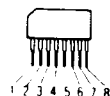
MC-Service

## 5-6. SEMICONDUCTORS

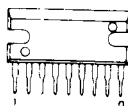
BX-1387



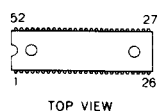
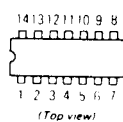
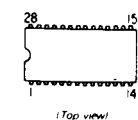
CX20061



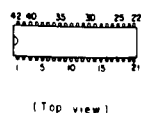
LA4280



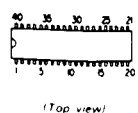
M50436

M58655P  
TDA2148
 CXA1114  
MAB8461P-W083  
TDA4555  
TDA4580  
TDA6200  
TDA6600  
TEA2028A  
SDA5231  
 $\mu$ PD4364CX015L


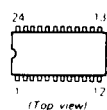
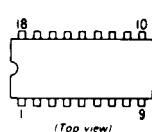
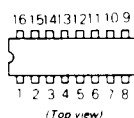
MB88503H



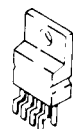
SDA5241



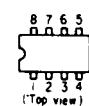
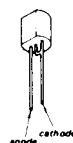
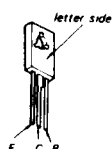
TDA2556

TDA2546A  
TDA4439TDA3541  
TDA4510  
TDA8442  
TEA2162A

TDA8170



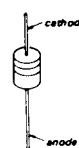
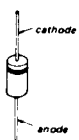
TEA2031A

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2SA1091  
JA101TP  
JC501TP
 2SA1048  
2SA1115  
2SC1740SRT  
2SC2458  
2SC2603  
DTA144ES  
DTC114ES  
DTC124ES  
DTC144ES
2SA1175  
2SC27852SB734  
2SD7742SB740  
2SC1475  
2SD7892SB1185  
2SD17612SC2611  
2SC2688

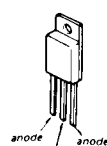
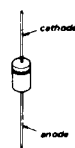
2SD1548



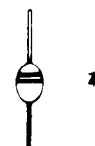
2SD1941


 1SS119  
1SS133  
HZS39NB4TD  
RD3.6ES-TIB2  
RD3.9ES-TIB1  
RD4.7ES-B1  
RD5.6ES-B2  
RD6.2ES-TIB2  
RD6.8ES-TIB2  
RD7.5ES-B3  
RD7.5ES-TIB3  
RD9.1ES-TIB3  
RD10ES-TIB3  
RD15ES-TIB1  
RD39ES-TIB4

 1S1555  
1SS168  
1SS238  
10E2  
ES1F  
ERD28-06S  
GP08DPKG23  
RGP01-17PKG23  
RGP10GPKG23


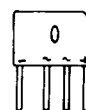
CTU-12S


 ERC06-15S  
ERC24-06S  
ERC25-06S  
ERD29-08J


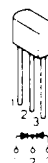
V19E



KBU-4J



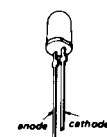
MC921



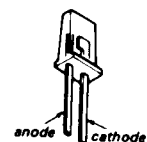
MC931TP



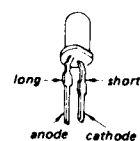
SE303AY



SR632D



TLR124




## SECTION 6 EXPLODED VIEWS

**NOTE:**

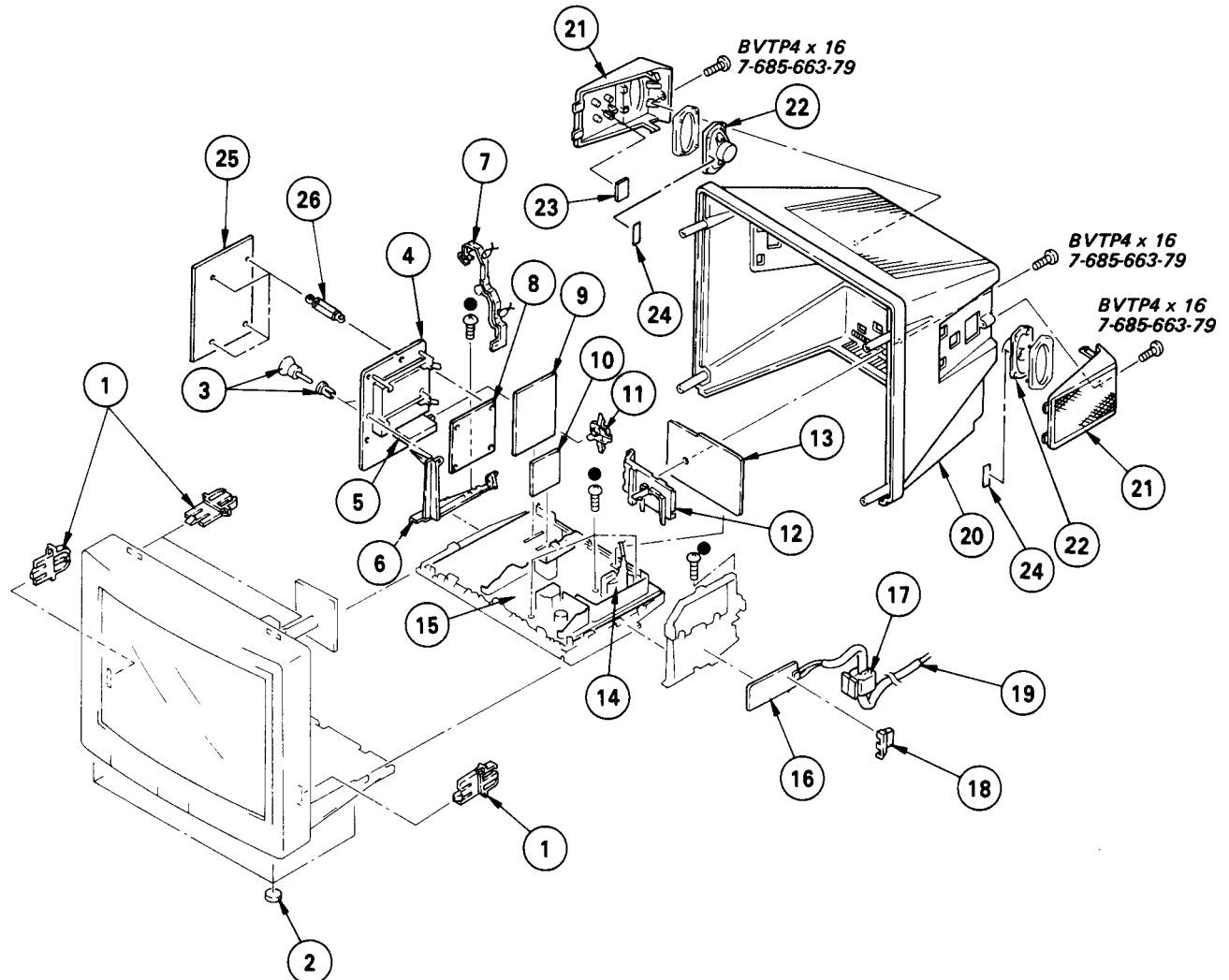
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.





- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark  are critical for safety. Replace only with part number specified.

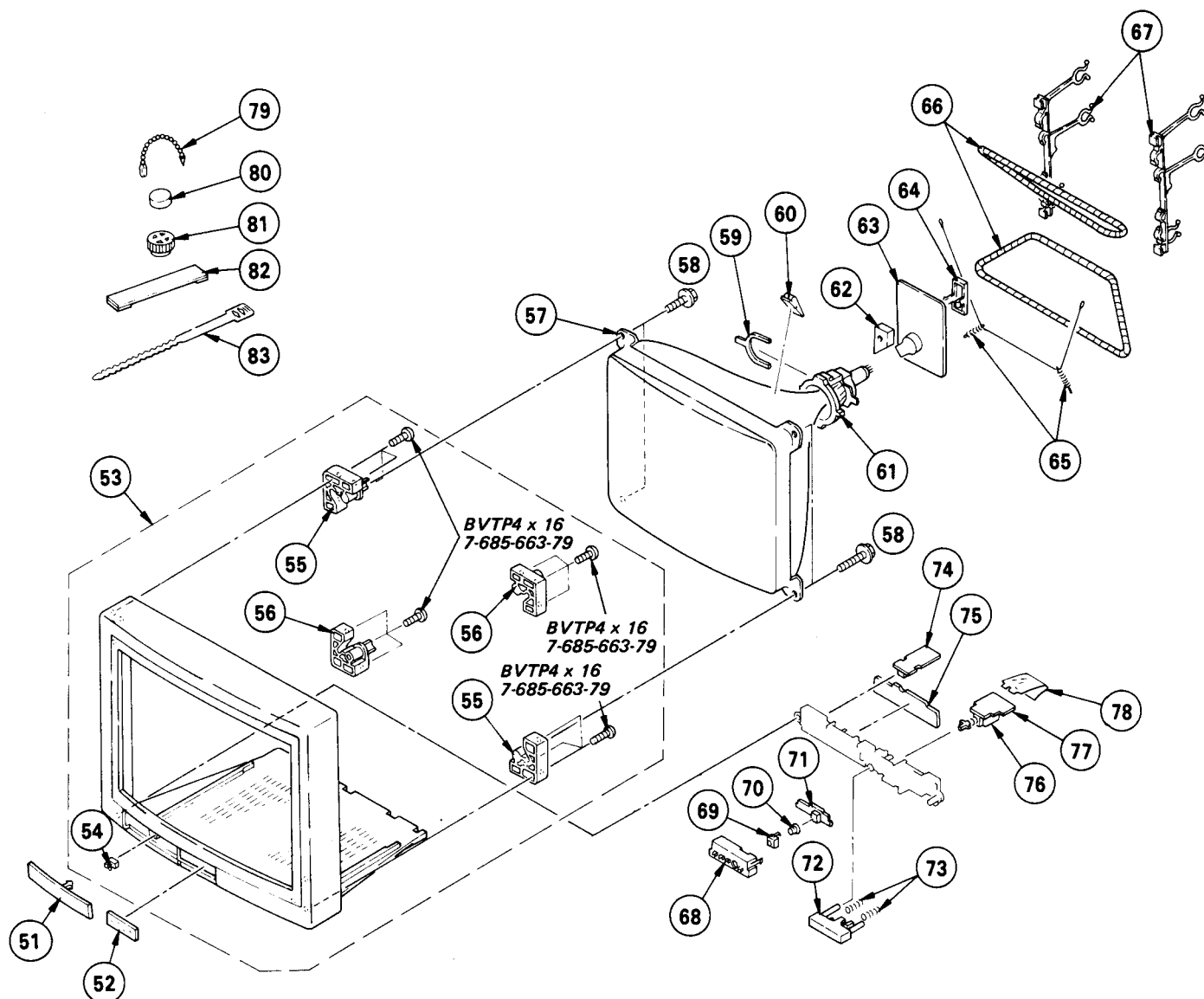
### 6-1. REAR COVER

●: BVTP3 x 12      7-685-648-79



No.	Part No.	Description	Remark	No.	Part No.	Description	Remark
1	4-382-745-01	HOLDER, RC		14	 1-439-416-11	TRANSFORMER ASSY, FLYBACK	
2	4-809-913-XX	FOOT, F		15	*A-1345-721-A	D BOARD, COMPLETE	
3	4-386-618-01	RIVET, T TYPE		16	*1-625-199-11	F1 BOARD	
4	*A-1296-436-A	A BOARD, COMPLETE		17	 4-022-115-01	HOLDER, AC CORD	
5	 1-463-907-11	TUNER, ET (BT-883S)		18	*4-386-620-01	COVER, POWER	
6	*4-386-629-11	BRACKET, A		19	 1-559-346-11	CORD, POWER (WITH CONNECTOR)	
7	*4-386-628-11	SUPPORTER, PC BOARD		20	4-387-808-01	COVER, REAR	
8	*A-1347-014-A	V BOARD, COMPLETE		21	X-4385-930-1	BOARD ASSY, BAFFLE	
9	*A-1135-498-A	B BOARD, COMPLETE		22	1-503-642-21	SPEAKER	
10	*1-625-206-11	KS BOARD		23	*1-625-208-11	Z BOARD	
11	*4-386-617-01	HOLDER, TERMINAL		24	4-387-886-01	SPACER, BAFFLE BOARD	
12	*4-386-624-11	BRACKET, J		25	*A-1296-435-A	A1 BOARD, COMPLETE	
13	*A-1371-373-A	J1 BOARD, COMPLETE		26	*4-385-948-01	HOLDER, PCB	

## 6-2. PICTURE TUBE



No.	Part No.	Description	Remark	No.	Part No.	Description	Remark
51	4-387-814-41	DOOR		68	*4-387-813-01	COVER, H2	
52	4-387-826-01	WINDOW, ORNAMENTAL		69	*4-388-955-01	BRACKET (B), LIGHT GUIDE	
53	X-4385-932-1	BEZEL & CABINET ASSY	54-56	70	*4-374-987-01	GUIDE, LIGHT	
54	4-386-710-01	CATCHER, PUSH		71	*1-625-202-11	H4 BOARD	
55	*4-387-806-01	BRACKET (B), PICTURE TUBE		72	4-387-812-01	BUTTON, POWER	
56	*4-387-805-01	BRACKET (A), PICTURE TUBE		73	4-387-809-01	SPRING, COMPRESSION	
57	△ 8-738-753-05	PICTURE TUBE (A51JUH60X)		74	*1-625-205-11	J2 BOARD	
58	4-382-733-01	SCREW (S), PT		75	*1-625-201-11	H3 BOARD	
59	1-452-277-00	MAGNET, BMC		76	△ 1-571-410-11	SWITCH, PUSH (AC POWER) (1 KEY)	
60	3-703-961-01	SPACER, DY		77	*1-625-200-11	F2 BOARD	
61	△ 1-451-295-21	DEFLECTION YOKE (SY-153E)		78	*4-387-804-01	INSULATOR	
62	*4-379-167-01	COVER (MAIN), CV		79	4-308-870-00	CLIP, LEAD WIRE	
63	*A-1330-850-A	C BOARD, COMPLETE		80	1-452-032-00	MAGNET, DISK; 10MM φ	
64	*4-379-160-01	COVER (REAR LID), CV		81	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM φ	
65	4-369-318-00	SPRING, TENSION		82	X-4309-608-0	PERMALLOY ASSY, CONVERGENCE	
66	△ 1-426-326-11	COIL, DEMAGNETIZATION		83	3-677-825-00	BAND, BINDING	
67	*4-386-622-01	BAND, DGC					

The components identified by shading and mark △ are critical for safety. Replace only with part number specified.

**B**

NOTE:

The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

• Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

• All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

**RESISTORS**

• All resistors are in ohms  
• F : nonflammable

When indicating parts by reference number, please include the board name.

**CAPACITORS**• MF :  $\mu$ F, PF :  $\mu$ F**COILS**• MMH : mH, UH :  $\mu$ H

Note) In this parts list, the mounting diagram is for a different product.  
Therefore, an excess of parts is listed.

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
	*A-1135-498-A	B BOARD, COMPLETE *****		C359	1-102-963-00	CERAMIC 33PF 5%	50V
		<b>CAPACITOR</b>		C360	1-101-004-00	CERAMIC 0.01MF	50V
C301	1-110-179-81	MYLAR 0.22MF 10%	100V	C361	1-101-004-00	CERAMIC 0.01MF	50V
C302	1-110-179-81	MYLAR 0.22MF 10%	100V	C364	1-101-361-00	CERAMIC 150PF 5%	50V
C303	1-126-101-11	ELECT 100MF 20%	16V	C365	1-124-477-11	ELECT 47MF 20%	16V
C304	1-110-179-81	MYLAR 0.22MF 10%	100V	C366	1-124-477-11	ELECT 47MF 20%	16V
C305	1-124-119-00	ELECT 330MF 20%	16V	C367	1-101-004-00	CERAMIC 0.01MF	50V
C306	1-124-902-00	ELECT 0.47MF 20%	50V	C368	1-101-880-00	CERAMIC 47PF 5%	50V
C307	1-124-902-00	ELECT 0.47MF 20%	50V	C381	1-124-902-00	ELECT 0.47MF 20%	50V
C308	1-124-902-00	ELECT 0.47MF 20%	50V	C382	1-124-927-11	ELECT 4.7MF 20%	50V
C309	1-124-902-00	ELECT 0.47MF 20%	50V	C384	1-124-477-11	ELECT 47MF 20%	16V
C310	1-110-175-81	MYLAR 0.1MF 10%	100V	C385	1-124-927-11	ELECT 4.7MF 20%	50V
C311	1-110-175-81	MYLAR 0.1MF 10%	100V	C387	1-124-902-00	ELECT 0.47MF 20%	50V
C312	1-124-902-00	ELECT 0.47MF 20%	50V	C1311	1-101-884-00	CERAMIC 56PF 5%	50V
C313	1-124-902-00	ELECT 0.47MF 20%	50V			<b>CONNECTOR</b>	
C314	1-124-902-00	ELECT 0.47MF 20%	50V	CNB31	*1-562-370-21	CONNECTOR, BOARD TO BOARD 18P	
C315	1-124-499-11	ELECT 1MF 20%	50V	CNB72	*1-564-895-11	PLUG, CONNECTOR 6P	
C319	1-124-477-11	ELECT 47MF 20%	16V	CNB93	*1-560-278-00	PLUG, CONNECTOR 6P	
C321	1-102-980-00	CERAMIC 270PF 5%	50V			<b>TRIMMER</b>	
C322	1-101-888-00	CERAMIC 68PF 5%	50V	CT331	1-141-181-11	CAP, TRIMMER	
C325	1-124-477-11	ELECT 47MF 20%	16V	CT332	1-141-181-11	CAP, TRIMMER	
C326	1-101-004-00	CERAMIC 0.01MF	50V			<b>DIODE</b>	
C327	1-101-004-00	CERAMIC 0.01MF	50V	D301	8-719-911-19	DIODE 1SS119	
C330	1-101-004-00	CERAMIC 0.01MF	50V	D302	8-719-911-19	DIODE 1SS119	
C331	1-124-963-11	ELECT 33MF 20%	16V	D303	8-719-911-19	DIODE 1SS119	
C332	1-124-119-00	ELECT 330MF 20%	16V	D304	8-719-911-19	DIODE 1SS119	
C333	1-101-005-00	CERAMIC 0.022MF	50V	D305	8-719-911-19	DIODE 1SS119	
C334	1-101-884-00	CERAMIC 56PF 5%	50V	D307	8-719-110-23	DIODE RD11ES-B3	
C335	1-101-006-00	CERAMIC 0.047MF	50V	D309	8-719-911-19	DIODE 1SS119	
C336	1-110-190-81	MYLAR 0.01MF 10%	400V	D331	8-719-911-19	DIODE 1SS119	
C337	1-101-004-00	CERAMIC 0.01MF	50V	D333	8-719-911-19	DIODE 1SS119	
C338	1-101-888-00	CERAMIC 68PF 5%	50V	D341	8-719-911-19	DIODE 1SS119	
C339	1-102-735-00	CERAMIC 120PF 5%	50V			<b>DELAY LINE</b>	
C340	1-102-953-00	CERAMIC 18PF 5%	50V	DL331	1-415-187-13	DELAY LINE	
C341	1-102-978-00	CERAMIC 220PF 5%	50V	DL332	1-236-062-11	MODULE, Y DELAY LINE	
C342	1-102-953-00	CERAMIC 18PF 5%	50V			<b>IC</b>	
C343	1-102-735-00	CERAMIC 120PF 5%	50V	IC301	8-759-923-81	IC TDA4580	
C344	1-101-888-00	CERAMIC 68PF 5%	50V	IC302	8-759-941-98	IC TDA8442	
C345	1-102-978-00	CERAMIC 220PF 5%	50V	IC331	8-759-947-20	IC TDA4555-V8	
C346	1-102-074-00	CERAMIC 0.001MF 10%	50V			<b>COIL</b>	
C347	1-124-499-11	ELECT 1MF 20%	50V	L301	1-410-868-21	INDUCTOR 4.7UH	
C348	1-124-499-11	ELECT 1MF 20%	50V	L302	1-410-868-21	INDUCTOR 4.7UH	
C349	1-136-173-00	FILM 0.47MF 5%	50V				
C350	1-110-171-81	MYLAR 0.047MF 10%	100V				
C351	1-110-182-81	MYLAR 0.022MF 10%	250V				
C352	1-110-182-81	MYLAR 0.022MF 10%	250V				
C354	1-102-074-00	CERAMIC 0.001MF 10%	50V				
C355	1-102-679-00	CERAMIC 120PF 5%	50V				
C357	1-102-965-00	CERAMIC 39PF 5%	50V				
C358	1-124-963-11	ELECT 33MF 20%	16V				

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
L303	1-408-408-00	INDUCTOR 8.2UH		R334	1-249-408-11	CARBON 180 5% 1/4W	
L304	1-410-470-11	INDUCTOR 10UH		R335	1-249-415-11	CARBON 680 5% 1/4W	
L331	1-408-408-00	INDUCTOR 8.2UH		R336	1-249-418-11	CARBON 1.2K 5% 1/4W	
L332	1-404-539-11	COIL		R337	1-247-848-11	CARBON 5.1K 5% 1/4W	
L333	1-404-554-11	COIL		R338	1-249-429-11	CARBON 10K 5% 1/4W	
L334	1-404-554-11	COIL		R339	1-249-409-11	CARBON 220 5% 1/4W	
L335	1-404-554-11	COIL		R340	1-249-437-11	CARBON 47K 5% 1/4W	
L336	1-410-478-11	INDUCTOR 47UH		R341	1-249-410-11	CARBON 270 5% 1/4W	
L338	1-410-477-21	INDUCTOR 39UH		R342	1-249-429-11	CARBON 10K 5% 1/4W	
L339	1-410-868-21	INDUCTOR 4.7UH		R343	1-249-429-11	CARBON 10K 5% 1/4W	
TRANSISTOR				R344	1-249-437-11	CARBON 47K 5% 1/4W	
Q302	8-729-178-54	TRANSISTOR 2SC2785		R346	1-249-419-11	CARBON 1.5K 5% 1/4W	
Q303	8-729-178-54	TRANSISTOR 2SC2785		R347	1-249-429-11	CARBON 10K 5% 1/4W	
Q305	8-729-900-36	TRANSISTOR DTC124ES		R348	1-249-437-11	CARBON 47K 5% 1/4W	
Q306	8-729-178-54	TRANSISTOR 2SC2785		R349	1-249-415-11	CARBON 680 5% 1/4W	
Q311	8-729-178-54	TRANSISTOR 2SC2785		R350	1-249-415-11	CARBON 680 5% 1/4W	
Q312	8-729-178-54	TRANSISTOR 2SC2785		R351	1-249-409-11	CARBON 220 5% 1/4W	
Q313	8-729-178-54	TRANSISTOR 2SC2785		R352	1-247-891-00	CARBON 330K 5% 1/4W	
Q316	8-729-178-54	TRANSISTOR 2SC2785		R353	1-247-891-00	CARBON 330K 5% 1/4W	
Q331	8-729-178-54	TRANSISTOR 2SC2785		R354	1-249-409-11	CARBON 220 5% 1/4W	
Q332	8-729-900-36	TRANSISTOR DTC124ES		R355	1-249-423-11	CARBON 3.3K 5% 1/4W	
Q333	8-729-900-36	TRANSISTOR DTC124ES		R356	1-249-427-11	CARBON 6.8K 5% 1/4W	
Q334	8-729-178-54	TRANSISTOR 2SC2785		R357	1-249-409-11	CARBON 220 5% 1/4W	
Q335	8-729-178-54	TRANSISTOR 2SC2785		R358	1-249-409-11	CARBON 220 5% 1/4W	
Q336	8-729-178-54	TRANSISTOR 2SC2785		R359	1-249-437-11	CARBON 47K 5% 1/4W	
Q381	8-729-900-36	TRANSISTOR DTC124ES		R360	1-249-437-11	CARBON 47K 5% 1/4W	
Q382	8-729-178-54	TRANSISTOR 2SC2785		R361	1-249-418-11	CARBON 1.2K 5% 1/4W	
Q1306	8-729-117-54	TRANSISTOR 2SA1175		R363	1-249-410-11	CARBON 270 5% 1/4W	
RESISTOR				R364	1-249-417-11	CARBON 1K 5% 1/4W	
R301	1-249-409-11	CARBON 220 5% 1/4W		R365	1-249-417-11	CARBON 1K 5% 1/4W	
R302	1-249-409-11	CARBON 220 5% 1/4W		R367	1-249-409-11	CARBON 220 5% 1/4W	
R303	1-249-409-11	CARBON 220 5% 1/4W		R368	1-247-752-11	CARBON 1K 5% 1/2W	
R304	1-249-409-11	CARBON 220 5% 1/4W		R369	1-247-752-11	CARBON 1K 5% 1/2W	
R305	1-249-421-11	CARBON 2.2K 5% 1/4W		R370	1-249-418-11	CARBON 1.2K 5% 1/4W	
R307	1-249-441-11	CARBON 100K 5% 1/4W		R371	1-249-417-11	CARBON 1K 5% 1/4W	
R308	1-249-414-11	CARBON 560 5% 1/4W		R376	1-249-429-11	CARBON 10K 5% 1/4W	
R309	1-249-405-11	CARBON 100 5% 1/4W		R378	1-249-441-11	CARBON 100K 5% 1/4W	
R310	1-249-405-11	CARBON 100 5% 1/4W		R379	1-249-441-11	CARBON 100K 5% 1/4W	
R311	1-249-405-11	CARBON 100 5% 1/4W		R380	1-249-426-11	CARBON 5.6K 5% 1/4W	
R312	1-249-409-11	CARBON 220 5% 1/4W		R381	1-249-439-11	CARBON 68K 5% 1/4W	
R313	1-249-433-11	CARBON 22K 5% 1/4W		R382	1-247-885-00	CARBON 180K 5% 1/4W	
R314	1-249-413-11	CARBON 470 5% 1/4W		R383	1-247-893-11	CARBON 390K 5% 1/4W	
R315	1-249-407-11	CARBON 150 5% 1/4W		R385	1-249-435-11	CARBON 33K 5% 1/4W	
R316	1-249-407-11	CARBON 150 5% 1/4W		R389	1-247-883-00	CARBON 150K 5% 1/4W	
R317	1-249-407-11	CARBON 150 5% 1/4W		R391	1-249-404-00	CARBON 82 5% 1/4W	
R318	1-249-429-11	CARBON 10K 5% 1/4W		R392	1-249-402-11	CARBON 56 5% 1/4W	
R319	1-249-409-11	CARBON 220 5% 1/4W		R393	1-249-402-11	CARBON 56 5% 1/4W	
R320	1-249-417-11	CARBON 1K 5% 1/4W		R394	1-249-402-11	CARBON 56 5% 1/4W	
R321	1-249-421-11	CARBON 2.2K 5% 1/4W		R398	1-249-433-11	CARBON 22K 5% 1/4W	
R322	1-249-420-11	CARBON 1.8K 5% 1/4W		R1324	1-249-419-11	CARBON 1.5K 5% 1/4W	
R323	1-249-421-11	CARBON 2.2K 5% 1/4W		VARIABLE RESISTOR			
R324	1-249-426-11	CARBON 5.6K 5% 1/4W		RV331	1-230-504-11	RES, ADJ, CARBON 220	
R325	1-249-429-11	CARBON 10K 5% 1/4W		TRANSFORMER			
R326	1-249-419-11	CARBON 1.5K 5% 1/4W		T331	1-404-584-11	COIL	
R327	1-249-427-11	CARBON 6.8K 5% 1/4W		CRYSTAL			
R328	1-249-397-11	CARBON 22 5% 1/4W		X331	1-567-307-21	OSCILLATOR, CRYSTAL	
R329	1-249-397-11	CARBON 22 5% 1/4W		X332	1-567-131-00	OSCILLATOR, CRYSTAL	
R330	1-249-397-11	CARBON 22 5% 1/4W					
R331	1-249-418-11	CARBON 1.2K 5% 1/4W					
R332	1-249-401-11	CARBON 47 5% 1/4W					
R333	1-249-412-11	CARBON 390 5% 1/4W					

**Z****F<sub>2</sub>****F<sub>1</sub>****A<sub>1</sub>**

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
	*1-625-208-11	Z BOARD *****			*A-1296-435-A	A1 BOARD, COMPLETE *****	
<u>CONNECTOR</u>				<u>CAPACITOR</u>			
CNZ43	*1-564-881-11	PLUG, CONNECTOR 4P		C1101	1-130-469-00	MYLAR 680PF	10% 50V
CNZ44	*1-564-881-11	PLUG, CONNECTOR 4P		C1102	1-101-888-00	CERAMIC 68PF	5% 50V
*****				C1103	1-123-875-11	ELECT 10MF	20% 50V
	*1-625-200-11	F2 BOARD *****		C1104	1-124-499-11	ELECT 1MF	20% 50V
<u>CONNECTOR</u>				C1105	1-124-927-11	ELECT 4.7MF	20% 50V
CNF262	*1-566-664-11	PIN, CONNECTOR 4P		C1106	1-102-816-00	CERAMIC 120PF	5% 50V
<u>SWITCH</u>				C1107	1-124-927-11	ELECT 4.7MF	20% 50V
S1701A	1-571-410-11	SWITCH, PUSH (AC POWER)(1 KEY)		C1108	1-123-875-11	ELECT 10MF	20% 50V
*****				C1109	1-136-153-00	FILM 0.01MF	5% 50V
	*1-625-199-11	F1 BOARD *****		C1110	1-124-499-11	ELECT 1MF	20% 50V
<u>CAPACITOR</u>				C1111	1-136-287-11	FILM 0.0047MF	5% 50V
C1601A	1-136-518-11	FILM 0.33MF 20% 300V		C1112	1-136-153-00	FILM 0.01MF	5% 50V
C1602A	1-136-519-11	FILM 0.47MF 20% 300V		C1113	1-108-618-91	MYLAR 0.0022MF	10% 100V
C1603A	1-162-578-51	CERAMIC 0.0047MF 20% 400V		C1114	1-136-688-11	FILM 0.0047MF	2% 100V
C1604A	1-162-578-51	CERAMIC 0.0047MF 20% 400V		C1115	1-136-153-00	FILM 0.01MF	5% 50V
C1605A	1-162-578-51	CERAMIC 0.0047MF 20% 400V		C1116	1-101-361-00	CERAMIC 150PF	5% 50V
C1606A	1-162-578-51	CERAMIC 0.0047MF 20% 400V		C1117	1-124-927-11	ELECT 4.7MF	20% 50V
C1607A	1-161-964-61	CERAMIC 0.0047MF 250V		C1118	1-124-477-11	ELECT 47MF	20% 16V
<u>CONNECTOR</u>				C1119	1-124-477-11	ELECT 47MF	20% 16V
CNF61	*1-566-664-11	PIN, CONNECTOR 4P		C1120	1-124-908-11	ELECT 22MF	20% 50V
CNF64	*1-506-349-21	3P PLUG (L)		C1121	1-124-908-11	ELECT 22MF	20% 50V
CNF65	*1-508-765-00	3P PLUG (M)		C1122	1-136-173-00	FILM 0.47MF	5% 50V
CNF66	*1-508-786-00	2P PLUG (M)		C1123	1-123-875-11	ELECT 10MF	20% 50V
CNF67	*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)		C1124	1-124-477-11	ELECT 47MF	20% 16V
CNF162	*1-506-347-21	4P PLUG		C1125	1-136-165-00	FILM 0.1MF	5% 50V
<u>FUSE</u>				C1126	1-136-157-00	FILM 0.022MF	5% 50V
F1601A	1-532-350-11	FUSE, TIME-LAG 4A/250V		C1127	1-136-161-00	FILM 0.047MF	5% 50V
	1-533-149-00	HOLDER, FUSE; F1601		C1128	1-124-477-11	ELECT 47MF	20% 16V
<u>FILTER</u>				C1129	1-136-169-00	FILM 0.22MF	5% 50V
LF1601A	1-421-866-12	LFT		C1130	1-136-161-00	FILM 0.047MF	5% 50V
LF1602A	1-421-776-11	LFT		C1131	1-101-004-00	CERAMIC 0.01MF	50V
LF1603	1-421-592-00	TRANSFORMER, FERITE		C1132	1-136-153-00	FILM 0.01MF	5% 50V
<u>RESISTOR</u>				C1133	1-124-499-11	ELECT 1MF	20% 50V
R1601A	1-215-192-81	METAL 47K 5% 1/4W		C1134	1-101-004-00	CERAMIC 0.01MF	50V
R1602A	1-244-945-91	CARBON 1M 5% 1/2W		C1135	1-124-963-11	ELECT 33MF	20% 16V
R1603A	1-217-328-11	WIREWOUND 2.7 10% 7W		C1136	1-124-927-11	ELECT 4.7MF	20% 50V
R1604A	1-215-192-81	METAL 47K 5% 1/4W		C1137	1-101-004-00	CERAMIC 0.01MF	50V
R1605A	1-247-289-11	CARBON 8.2M 5% 1W		C1138	1-136-153-00	FILM 0.01MF	5% 50V
R1606A	1-217-777-11	WIREWOUND 100 10% 10W		C1139	1-101-004-00	CERAMIC 0.01MF	50V
<u>THERMISTOR</u>				C1140	1-124-927-11	ELECT 4.7MF	20% 50V
THP601A	1-806-387-11	THERMISTOR (POSITIVE)		C1141	1-124-925-11	ELECT 2.2MF	20% 50V
<u>DISCRIMINATOR CERAMIC</u>				C1142	1-101-004-00	CERAMIC 0.01MF	50V
CD1101	1-404-684-11	DISCRIMINATOR, CERAMIC		C1143	1-124-963-11	ELECT 33MF	20% 16V
CD1102	1-404-708-11	DISCRIMINATOR, CERAMIC		C1144	1-101-004-00	CERAMIC 0.01MF	50V
CD1103	1-404-751-11	DISCRIMINATOR, CERAMIC		C1145	1-101-004-00	CERAMIC 0.01MF	50V
CD1104	1-404-750-11	DISCRIMINATOR, CERAMIC		C1146	1-101-004-00	CERAMIC 0.01MF	50V
				C1147	1-101-004-00	CERAMIC 0.01MF	50V
				C1148	1-101-004-00	CERAMIC 0.01MF	50V
				C1149	1-101-004-00	CERAMIC 0.01MF	50V
				C1150	1-124-963-11	ELECT 33MF	20% 16V
				C1151	1-124-963-11	ELECT 33MF	20% 16V
				C1152	1-124-963-11	ELECT 33MF	20% 16V
				C1153	1-126-101-11	ELECT 100MF	20% 16V
				C1154	1-126-101-11	ELECT 100MF	20% 16V



Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
<u>FILTER</u>				R1106	1-249-435-11	CARBON 33K 5% 1/4W	
CF1101	1-567-569-11	FILTER, CERAMIC		R1107	1-249-405-11	CARBON 100 5% 1/4W	
CF1102	1-567-728-11	FILTER, CERAMIC		R1108	1-249-419-11	CARBON 1.5K 5% 1/4W	
CF1103	1-527-840-00	FILTER, CERAMIC		R1109	1-249-437-11	CARBON 47K 5% 1/4W	
CF1104	1-527-839-00	FILTER, CERAMIC		R1110	1-249-441-11	CARBON 100K 5% 1/4W	
<u>CONNECTOR</u>				R1111	1-249-432-11	CARBON 18K 5% 1/4W	
CNA112*1-564-884-11	PLUG, CONNECTOR 7P			R1112	1-249-435-11	CARBON 33K 5% 1/4W	
<u>DIODE</u>				R1113	1-249-430-11	CARBON 12K 5% 1/4W	
D1101	8-719-911-19	DIODE 1SS119		R1114	1-247-881-00	CARBON 120K 5% 1/4W	
D1102	8-719-911-19	DIODE 1SS119		R1115	1-249-437-11	CARBON 47K 5% 1/4W	
D1103	8-719-911-19	DIODE 1SS119		R1116	1-249-441-11	CARBON 100K 5% 1/4W	
D1104	8-719-911-19	DIODE 1SS119		R1117	1-249-405-11	CARBON 100 5% 1/4W	
D1105	8-719-911-19	DIODE 1SS119		R1118	1-249-441-11	CARBON 100K 5% 1/4W	
D1106	8-719-911-19	DIODE 1SS119		R1119	1-249-431-11	CARBON 15K 5% 1/4W	
D1107	8-719-911-19	DIODE 1SS119		R1120	1-249-414-11	CARBON 560 5% 1/4W	
D1108	8-719-911-19	DIODE 1SS119		R1121	1-249-426-11	CARBON 5.6K 5% 1/4W	
<u>IC</u>				R1122	1-249-438-11	CARBON 56K 5% 1/4W	
IC1101	8-759-946-99	IC TDA2595-V7		R1123	1-249-415-11	CARBON 680 5% 1/4W	
IC1102	8-759-013-18	IC TDA6600		R1124	1-249-440-11	CARBON 82K 5% 1/4W	
IC1103	8-759-003-90	IC TBA129		R1125	1-249-414-11	CARBON 560 5% 1/4W	
IC1104	8-759-003-90	IC TBA129		R1126	1-249-429-11	CARBON 10K 5% 1/4W	
IC1105	8-759-003-90	IC TBA129		R1127	1-249-431-11	CARBON 15K 5% 1/4W	
IC1106	8-759-003-90	IC TBA129		R1128	1-249-439-11	CARBON 68K 5% 1/4W	
IC1107	8-759-240-52	IC TC4052BP		R1129	1-249-441-11	CARBON 100K 5% 1/4W	
<u>COIL</u>				R1130	1-249-441-11	CARBON 100K 5% 1/4W	
L1101	1-407-495-00	INDUCTOR 1.8MMH		R1131	1-249-440-11	CARBON 82K 5% 1/4W	
L1102	1-410-471-11	INDUCTOR 12UH		R1132	1-249-431-11	CARBON 15K 5% 1/4W	
L1103	1-410-467-41	INDUCTOR 5.6UH		R1133	1-249-414-11	CARBON 560 5% 1/4W	
L1104	1-408-411-00	INDUCTOR 15UH		R1134	1-249-428-11	CARBON 8.2K 5% 1/4W	
L1105	1-410-467-41	INDUCTOR 5.6UH		R1135	1-249-441-11	CARBON 100K 5% 1/4W	
L1106	1-410-467-41	INDUCTOR 5.6UH		R1136	1-249-415-11	CARBON 680 5% 1/4W	
L1107	1-410-471-11	INDUCTOR 12UH		R1137	1-249-422-11	CARBON 2.7K 5% 1/4W	
L1108	1-410-471-11	INDUCTOR 12UH		R1138	1-249-414-11	CARBON 560 5% 1/4W	
L1109	1-410-482-31	INDUCTOR 100UH		R1139	1-249-413-11	CARBON 470 5% 1/4W	
<u>TRANSISTOR</u>				R1140	1-249-435-11	CARBON 33K 5% 1/4W	
Q1101	8-729-117-54	TRANSISTOR 2SA1175		R1141	1-249-431-11	CARBON 15K 5% 1/4W	
Q1102	8-729-900-89	TRANSISTOR DTC144ES		R1142	1-249-436-11	CARBON 39K 5% 1/4W	
Q1103	8-729-900-36	TRANSISTOR DTC124ES		R1143	1-249-414-11	CARBON 560 5% 1/4W	
Q1104	8-729-900-36	TRANSISTOR DTC124ES		R1144	1-249-415-11	CARBON 680 5% 1/4W	
Q1105	8-729-900-63	TRANSISTOR DTA124ES		R1145	1-249-414-11	CARBON 560 5% 1/4W	
Q1106	8-729-900-63	TRANSISTOR DTA124ES		R1146	1-249-414-11	CARBON 560 5% 1/4W	
Q1107	8-729-178-54	TRANSISTOR 2SC2785		R1147	1-249-414-11	CARBON 560 5% 1/4W	
Q1109	8-729-178-54	TRANSISTOR 2SC2785		R1148	1-249-415-11	CARBON 680 5% 1/4W	
Q1110	8-729-178-54	TRANSISTOR 2SC2785		R1149	1-249-425-11	CARBON 4.7K 5% 1/4W	
<u>RESISTOR</u>				R1150	1-249-425-11	CARBON 4.7K 5% 1/4W	
R1101	1-249-405-11	CARBON 100 5% 1/4W		R1153	1-249-413-11	CARBON 470 5% 1/4W	
R1102	1-249-428-11	CARBON 8.2K 5% 1/4W		R1154	1-249-437-11	CARBON 47K 5% 1/4W	
R1103	1-249-440-11	CARBON 82K 5% 1/4W		R1155	1-249-437-11	CARBON 47K 5% 1/4W	
R1104	1-249-405-11	CARBON 100 5% 1/4W		R1156	1-249-437-11	CARBON 47K 5% 1/4W	
R1105	1-249-416-11	CARBON 820 5% 1/4W		R1157	1-249-437-11	CARBON 47K 5% 1/4W	
				R1158	1-249-435-11	CARBON 33K 5% 1/4W	
				R1159	1-249-417-11	CARBON 1K 5% 1/4W	
				R1160	1-249-417-11	CARBON 1K 5% 1/4W	
				R1161	1-249-417-11	CARBON 1K 5% 1/4W	
				<u>VARIABLE RESISTOR</u>			
				RV1101	1-237-751-11	RES, ADJ, CARBON 10K	
				RV1102	1-237-753-11	RES, ADJ, CARBON 47K	

The components identified by shading and mark **A** are critical for safety.  
Replace only with part number specified.

**A**

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
	*A-1296-436-A	A BOARD, COMPLETE *****		C156	1-102-125-00	CERAMIC	0.0047MF 10% 50V
	<b>A</b> .1-566-700-11	SOCKET, ANTENNA (PAL, J-RCA.P)		C157	1-136-159-00	FILM	0.033MF 5% 50V
	*4-380-698-01	CASE (MAIN), SHIELD, A1		C158	1-101-004-00	CERAMIC	0.01MF 50V
	*4-380-699-01	CASE (UPPER LID), SHIELD, A1		C159	1-104-290-11	POLYSTYRENE	330PF 5% 50V
	*4-382-701-01	CASE (BOTTOM LID), SHIELD, A2		C160	1-101-004-00	CERAMIC	0.01MF 50V
<u>CAPACITOR</u>				C161	1-102-651-00	CERAMIC	68PF 5% 50V
C101	1-124-963-11	ELECT	33MF 20% 16V	C162	1-124-963-11	ELECT	33MF 20% 16V
C102	1-124-963-11	ELECT	33MF 20% 16V	C163	1-102-125-00	CERAMIC	0.0047MF 10% 50V
C103	1-110-175-81	MYLAR	0.1MF 10% 100V	C164	1-102-119-00	CERAMIC	0.0015MF 10% 50V
C104	1-102-074-00	CERAMIC	0.001MF 10% 50V	C165	1-102-978-00	CERAMIC	220PF 5% 50V
C105	1-123-875-11	ELECT	10MF 20% 50V	C166	1-101-003-00	CERAMIC	0.0047MF 50V
C106	1-124-963-11	ELECT	33MF 20% 16V	C167	1-123-382-00	ELECT	3.3MF 20% 50V
C107	1-102-963-00	CERAMIC	33PF 5% 50V	<u>FILTER</u>			
C108	1-110-190-81	MYLAR	0.01MF 10% 400V	CF101	1-567-570-11	FILTER, CERAMIC	
C109	1-136-163-00	FILM	0.068MF 5% 50V	CF102	1-404-134-00	TRAP, CERAMIC (5.5MHZ)	
C110	1-136-163-00	FILM	0.068MF 5% 50V	CF103	1-409-332-00	CERAMIC TRAP (4.5MHZ)	
C111	1-102-125-00	CERAMIC	0.0047MF 10% 50V	SWF101	1-404-712-11	SAWF	
C112	1-101-969-00	CERAMIC	5PF 0.5PF 50V	SWF102	1-404-711-11	SAWF	
C113	1-101-969-00	CERAMIC	5PF 0.5PF 50V	SWF103	1-404-717-11	FILTER, SURFACE WAVE	
C114	1-102-657-91	CERAMIC	150PF 5% 50V	<u>CONNECTOR</u>			
C115	1-102-656-00	CERAMIC	120PF 5% 50V	CNA11	*1-566-659-11	CONNECTOR, HINGE (SOCKET) 18P	
C116	1-102-951-00	CERAMIC	15PF 5% 50V	CNA13	*1-564-889-11	PLUG, CONNECTOR 12P	
C117	1-102-649-91	CERAMIC	56PF 5% 50V	CNA14	*1-564-880-31	PLUG, CONNECTOR 3P	
C118	1-102-125-00	CERAMIC	0.0047MF 10% 50V	CNA16	*1-508-784-00	1P PLUG	
C119	1-102-074-00	CERAMIC	0.001MF 10% 50V	<u>DIODE</u>			
C120	1-102-125-00	CERAMIC	0.0047MF 10% 50V	D101	8-719-911-19	DIODE 1SS119	
C121	1-126-103-11	ELECT	470MF 20% 16V	D103	8-719-911-19	DIODE 1SS119	
C122	1-102-074-00	CERAMIC	0.001MF 10% 50V	D104	8-719-911-19	DIODE 1SS119	
C123	1-102-125-00	CERAMIC	0.0047MF 10% 50V	D105	8-719-911-19	DIODE 1SS119	
C124	1-102-125-00	CERAMIC	0.0047MF 10% 50V	D106	8-719-911-19	DIODE 1SS119	
C125	1-102-125-00	CERAMIC	0.0047MF 10% 50V	D107	8-719-911-19	DIODE 1SS119	
C126	1-102-125-00	CERAMIC	0.0047MF 10% 50V	D108	8-719-911-19	DIODE 1SS119	
C127	1-102-125-00	CERAMIC	0.0047MF 10% 50V	D109	8-719-911-19	DIODE 1SS119	
C128	1-102-125-00	CERAMIC	0.0047MF 10% 50V	D110	8-719-903-27	DIODE 1SS168	
C129	1-102-125-00	CERAMIC	0.0047MF 10% 50V	D111	8-719-903-27	DIODE 1SS168	
C130	1-124-499-11	ELECT	1MF 20% 50V	D112	8-719-903-27	DIODE 1SS168	
C131	1-124-499-11	ELECT	1MF 20% 50V	D113	8-719-903-27	DIODE 1SS168	
C132	1-102-125-00	CERAMIC	0.0047MF 10% 50V	D114	8-719-911-19	DIODE 1SS119	
C133	1-123-875-11	ELECT	10MF 20% 50V	<u>IC</u>			
C134	1-110-186-81	MYLAR	0.0047MF 10% 400V	IC101	8-759-007-37	IC TDA2148	
C135	1-102-125-00	CERAMIC	0.0047MF 10% 50V		*4-369-734-01	HEAT SINK; IC101	
C136	1-124-499-11	ELECT	1MF 20% 50V	IC102	8-759-946-60	IC TDA4439	
C137	1-102-125-00	CERAMIC	0.0047MF 10% 50V	IC103	8-759-909-54	IC TDA2546A	
C138	1-124-963-11	ELECT	33MF 20% 16V	IC104	8-759-708-05	IC NJM78L05A	
C139	1-124-499-11	ELECT	1MF 20% 50V	IC105	8-759-278-09	IC TA78L009AP	
C140	1-102-125-00	CERAMIC	0.0047MF 10% 50V	<u>COIL</u>			
C141	1-102-125-00	CERAMIC	0.0047MF 10% 50V	L101	1-408-226-00	INDUCTOR	82UH
C142	1-110-175-81	MYLAR	0.1MF 10% 100V	L102	1-410-467-21	INDUCTOR	5.6UH
C143	1-102-125-00	CERAMIC	0.0047MF 10% 50V	L103	1-410-460-11	INDUCTOR	1.5UH
C144	1-124-963-11	ELECT	33MF 20% 16V	L104	1-410-467-21	INDUCTOR	5.6UH
C145	1-126-101-11	ELECT	100MF 20% 16V	L105	1-410-467-21	INDUCTOR	5.6UH
C146	1-102-651-00	CERAMIC	68PF 5% 50V	L106	1-410-460-11	INDUCTOR	1.5UH
C147	1-102-125-00	CERAMIC	0.0047MF 10% 50V	L107	1-410-467-21	INDUCTOR	5.6UH
C148	1-102-125-00	CERAMIC	0.0047MF 10% 50V	L108	1-410-458-21	INDUCTOR	1UH
C149	1-102-125-00	CERAMIC	0.0047MF 10% 50V	L109	1-410-470-11	INDUCTOR	10UH
C150	1-102-125-00	CERAMIC	0.0047MF 10% 50V	L110	1-408-411-00	INDUCTOR	15UH
C151	1-102-651-00	CERAMIC	68PF 5% 50V	L111	1-410-467-21	INDUCTOR	5.6UH
C152	1-102-125-00	CERAMIC	0.0047MF 10% 50V	L112	1-410-482-31	INDUCTOR	100UH
C153	1-102-125-00	CERAMIC	0.0047MF 10% 50V				
C154	1-102-125-00	CERAMIC	0.0047MF 10% 50V				
C155	1-124-252-00	ELECT	0.33MF 20% 50V				

The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

**KV-X21TM**  
RM-673

**A**

**C**

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
<u>TRANSISTOR</u>							
Q101	8-729-900-36	TRANSISTOR DTC124ES		R142	1-249-397-11	CARBON 22 5% 1/4W	
Q102	8-729-900-36	TRANSISTOR DTC124ES		R143	1-249-418-11	CARBON 1.2K 5% 1/4W	
Q103	8-729-900-61	TRANSISTOR DTA114ES		R144	1-249-433-11	CARBON 22K 5% 1/4W	
Q104	8-729-900-61	TRANSISTOR DTA114ES		R145	1-249-433-11	CARBON 22K 5% 1/4W	
Q105	8-729-900-61	TRANSISTOR DTA114ES		R146	1-249-414-11	CARBON 560 5% 1/4W	
Q106	8-729-178-54	TRANSISTOR 2SC2785		R147	1-249-433-11	CARBON 22K 5% 1/4W	
Q107	8-729-900-89	TRANSISTOR DTC144ES		R148	1-249-428-11	CARBON 8.2K 5% 1/4W	
Q108	8-729-900-63	TRANSISTOR DTA124ES		R149	1-249-413-11	CARBON 470 5% 1/4W	
Q109	8-729-900-36	TRANSISTOR DTC124ES		R150	1-249-426-11	CARBON 5.6K 5% 1/4W	
Q110	8-729-901-59	TRANSISTOR BF199		R151	1-249-412-11	CARBON 390 5% 1/4W	
Q111	8-729-000-12	TRANSISTOR BF959		R152	1-249-415-11	CARBON 680 5% 1/4W	
Q112	8-729-900-36	TRANSISTOR DTC124ES		R153	1-249-426-11	CARBON 5.6K 5% 1/4W	
Q113	8-729-900-36	TRANSISTOR DTC124ES		R154	1-249-405-11	CARBON 100 5% 1/4W	
Q114	8-729-900-36	TRANSISTOR DTC124ES		R155	1-249-415-11	CARBON 680 5% 1/4W	
Q115	8-729-000-12	TRANSISTOR BF959		R156	1-249-433-11	CARBON 22K 5% 1/4W	
Q116	8-729-900-63	TRANSISTOR DTA124ES		R157	1-249-436-11	CARBON 39K 5% 1/4W	
Q117	8-729-178-54	TRANSISTOR 2SC2785		R158	1-249-426-11	CARBON 5.6K 5% 1/4W	
Q118	8-729-115-10	TRANSISTOR 2SK105A-10		R159	1-249-405-11	CARBON 100 5% 1/4W	
Q119	8-729-117-54	TRANSISTOR 2SA1175		R160	1-249-417-11	CARBON 1K 5% 1/4W	
Q120	8-729-900-36	TRANSISTOR DTC124ES		R161	1-249-426-11	CARBON 5.6K 5% 1/4W	
Q121	8-729-900-36	TRANSISTOR DTC124ES		R162	1-249-405-11	CARBON 100 5% 1/4W	
<u>RESISTOR</u>				R163	1-249-439-11	CARBON 68K 5% 1/4W	
R101	1-249-421-11	CARBON 2.2K 5% 1/4W		R164	1-249-423-11	CARBON 3.3K 5% 1/4W	
R102	1-249-429-11	CARBON 10K 5% 1/4W		R165	1-247-889-00	CARBON 270K 5% 1/4W	
R103	1-249-421-11	CARBON 2.2K 5% 1/4W		R166	1-249-427-11	CARBON 6.8K 5% 1/4W	
R104	1-249-433-11	CARBON 22K 5% 1/4W		<u>VARIABLE RESISTOR</u>			
R105	1-249-417-11	CARBON 1K 5% 1/4W		RV101	1-237-749-11	RES, ADJ, CARBON 2200	
R106	1-247-891-00	CARBON 330K 5% 1/4W		<u>TRANSFORMER</u>			
R107	1-249-423-11	CARBON 3.3K 5% 1/4W		T101	1-409-372-00	COIL, TRAP	
R108	1-249-429-11	CARBON 10K 5% 1/4W		T102	1-404-476-00	COIL, IF	
R109	1-249-429-11	CARBON 10K 5% 1/4W		T103	1-404-476-00	COIL, IF	
R110	1-249-399-11	CARBON 33 5% 1/4W		T104	1-404-558-11	COIL	
R111	1-249-429-11	CARBON 10K 5% 1/4W		T105	1-404-556-11	COIL	
R112	1-249-429-11	CARBON 10K 5% 1/4W		T106	1-404-477-00	COIL, IF	
R113	1-249-409-11	CARBON 220 5% 1/4W		T107	1-404-558-11	COIL	
R114	1-249-428-11	CARBON 8.2K 5% 1/4W		T108	1-404-556-11	COIL	
R115	1-249-431-11	CARBON 15K 5% 1/4W		T109	1-404-493-00	COIL	
R116	1-249-397-11	CARBON 22 5% 1/4W		<u>TUNER</u>			
R117	1-249-413-11	CARBON 470 5% 1/4W		TU101A	1-463-907-11	TUNER, ET (BT-883S)	
R118	1-249-419-11	CARBON 1.5K 5% 1/4W		*****			
R119	1-249-405-11	CARBON 100 5% 1/4W		*A-1330-850-A	C BOARD, COMPLETE		
R120	1-249-401-11	CARBON 47 5% 1/4W		*****			
R121	1-249-409-11	CARBON 220 5% 1/4W		*4-379-160-01	COVER (REAR LID), CV		
R122	1-249-435-11	CARBON 33K 5% 1/4W		*4-379-167-01	COVER (MAIN), CV		
R123	1-249-421-11	CARBON 2.2K 5% 1/4W		*4-386-664-01	SPRING		
R124	1-249-421-11	CARBON 2.2K 5% 1/4W		<u>CAPACITOR</u>			
R125	1-249-421-11	CARBON 2.2K 5% 1/4W		C703	1-102-980-00	CERAMIC 270PF 5% 50V	
R126	1-249-425-11	CARBON 4.7K 5% 1/4W		C704	1-102-116-00	CERAMIC 680PF 10% 50V	
R127	1-249-424-11	CARBON 3.9K 5% 1/4W		C705	1-102-976-00	CERAMIC 180PF 5% 50V	
R128	1-249-415-11	CARBON 680 5% 1/4W		C706	1-102-116-00	CERAMIC 680PF 10% 50V	
R129	1-249-409-11	CARBON 220 5% 1/4W		C707	1-162-116-00	CERAMIC 680PF 10% 2KV	
R130	1-247-891-00	CARBON 330K 5% 1/4W		C708	1-162-114-00	CERAMIC 0.0047MF 2KV	
R131	1-249-421-11	CARBON 2.2K 5% 1/4W		C709	1-102-116-00	CERAMIC 680PF 10% 50V	
R132	1-249-412-11	CARBON 390 5% 1/4W		C710	1-123-947-00	ELECT 10MF 20% 250V	
R133	1-249-405-11	CARBON 100 5% 1/4W		C711	1-101-880-00	CERAMIC 47PF 5% 50V	
R134	1-249-405-11	CARBON 100 5% 1/4W		C712	1-102-980-00	CERAMIC 270PF 5% 50V	
R135	1-249-417-11	CARBON 1K 5% 1/4W					
R137	1-249-410-11	CARBON 270 5% 1/4W					
R138	1-249-429-11	CARBON 10K 5% 1/4W					
R139	1-249-416-11	CARBON 820 5% 1/4W					
R140	1-249-437-11	CARBON 47K 5% 1/4W					
R141	1-249-418-11	CARBON 1.2K 5% 1/4W					

C

D

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
C714	1-124-360-00	ELECT 1000MF 20%	16V	R720	1-249-423-11	CARBON 3.3K 5%	1/4W
C716	1-162-583-11	CERAMIC 330PF 10%	400V	R721	1-202-842-11	SOL ID 220K 10%	1/2W
C717	1-102-114-00	CERAMIC 470PF 10%	50V	R722	1-202-848-00	SOL ID 680K 10%	1/2W
C718	1-102-114-00	CERAMIC 470PF 10%	50V	R723	1-249-417-11	CARBON 1K 5%	1/4W
C719	1-102-114-00	CERAMIC 470PF 10%	50V	R724	1-202-846-00	SOL ID 470K 10%	1/2W
<u>CONNECTOR</u>				R725	1-202-838-00	SOL ID 100K 10%	1/2W
CNC71	*1-506-371-00	2P PLUG (L)		R726	1-202-824-00	SOL ID 3.3K 10%	1/2W
CNC72	*1-564-883-11	PLUG, CONNECTOR 6P		R727	1-249-409-11	CARBON 220 5%	1/4W
CNC81	*1-560-123-00	PLUG, CONNECTOR (2.5MM PITCH)		R728	1-216-347-11	METAL OXIDE 0.68 5%	1W F
CNC82	*1-508-765-00	3P PLUG (M)		R729	1-249-416-11	CARBON 820 5%	1/4W
<u>DIODE</u>				R730	1-249-401-11	CARBON 47 5%	1/4W
D701	8-719-110-14	DIODE RD9.1ES-B3		R731	1-249-423-11	CARBON 3.3K 5%	1/4W
D702	8-719-911-19	DIODE 1SS119		R732	1-249-415-11	CARBON 680 5%	1/4W
D703	8-719-911-19	DIODE 1SS119		R733	1-249-415-11	CARBON 680 5%	1/4W
D704	8-719-911-19	DIODE 1SS119		R734	1-249-405-11	CARBON 100 5%	1/4W
D705	8-719-911-19	DIODE 1SS119		R735	1-215-493-00	METAL 1M 1%	1/6W
D706	8-719-911-19	DIODE 1SS119		R736	1-216-486-00	METAL OXIDE 8.2K 5%	3W F
D707	8-719-911-19	DIODE 1SS119		R737	1-215-483-00	METAL 390K 1%	1/6W
D708	8-719-911-19	DIODE 1SS119		R739	1-249-417-11	CARBON 1K 5%	1/4W
D709	8-719-911-19	DIODE 1SS119		<u>VARIABLE RESISTOR</u>			
D710	8-719-911-19	DIODE 1SS119		RV701	1-230-641-21	RES, ADJ, METAL GLAZE 2.2M	
D711	8-719-924-06	DIODE ERC24-06S		RV702	1-230-619-11	RES, ADJ, METAL GLAZE 110M	
D713	8-719-911-19	DIODE 1SS119		RV703	1-237-749-11	RES, ADJ, CARBON 2200	
<u>JACK</u>				RV704	1-237-749-11	RES, ADJ, CARBON 2200	
J701	1-526-798-51	SOCKET, PICTURE TUBE		*****			
<u>COIL</u>				*A-1345-721-A D BOARD, COMPLETE			
L704	1-410-878-21	INDUCTOR 33UH		*****			
<u>TRANSISTOR</u>				*4-341-751-01 PAWL			
Q702	8-729-178-54	TRANSISTOR 2SC2785		*4-341-751-01 PAWL			
Q703	8-729-326-11	TRANSISTOR 2SC2611		*4-341-752-01 EYELET			
Q704	8-729-200-17	TRANSISTOR 2SA1091		<u>CAPACITOR</u>			
Q705	8-729-178-54	TRANSISTOR 2SC2785		C001	1-102-973-00	CERAMIC 100PF 5%	50V
Q706	8-729-326-11	TRANSISTOR 2SC2611		C003	1-110-175-81	MYLAR 0.1MF 10%	100V
Q707	8-729-200-17	TRANSISTOR 2SA1091		C004	1-123-875-11	ELECT 10MF 20%	50V
Q708	8-729-178-54	TRANSISTOR 2SC2785		C005	1-102-074-00	CERAMIC 0.001MF 10%	50V
Q709	8-729-326-11	TRANSISTOR 2SC2611		C007	1-110-171-81	MYLAR 0.047MF 10%	100V
Q710	8-729-200-17	TRANSISTOR 2SA1091		C008	1-101-880-00	CERAMIC 47PF 5%	50V
<u>RESISTOR</u>				C009	1-101-884-00	CERAMIC 56PF 5%	50V
R704	1-216-486-00	METAL OXIDE 8.2K 5%	3W F	C010	1-126-101-11	ELECT 100MF 20%	16V
R705	1-202-824-00	SOL ID 3.3K 10%	1/2W	C011	1-101-004-00	CERAMIC 0.01MF 50V	
R706	1-249-409-11	CARBON 220 5%	1/4W	C012	1-126-101-11	ELECT 100MF 20%	16V
R707	1-247-822-11	CARBON 430 5%	1/4W	C013	1-101-004-00	CERAMIC 0.01MF 50V	
R708	1-249-401-11	CARBON 47 5%	1/4W	C014	1-124-463-00	ELECT 0.1MF 20%	50V
R709	1-202-844-00	SOL ID 330K 10%	1/2W	C015	1-126-101-11	ELECT 100MF 20%	16V
R710	1-215-469-00	METAL 100K 1%	1/6W	C016	1-101-004-00	CERAMIC 0.01MF 50V	
R712	1-249-417-11	CARBON 1K 5%	1/4W	C017	1-123-875-11	ELECT 10MF 20%	50V
R713	1-215-474-00	METAL 160K 1%	1/6W	C018	1-102-980-00	CERAMIC 270PF 5%	50V
R714	1-216-486-00	METAL OXIDE 8.2K 5%	3W F	C019	1-110-171-81	MYLAR 0.047MF 10%	100V
R715	1-202-824-00	SOL ID 3.3K 10%	1/2W	C020	1-102-973-00	CERAMIC 100PF 5%	50V
R716	1-249-409-11	CARBON 220 5%	1/4W	C021	1-102-973-00	CERAMIC 100PF 5%	50V
R717	1-249-415-11	CARBON 680 5%	1/4W	C022	1-124-477-11	ELECT 47MF 20%	16V
R718	1-202-814-11	SOL ID 33K 10%	1/2W	C023	1-124-499-11	ELECT 1MF 20%	50V
R719	1-249-401-11	CARBON 47 5%	1/4W	C024	1-124-499-11	ELECT 1MF 20%	50V
				C025	1-102-125-00	CERAMIC 0.0047MF 10%	50V
				C026	1-102-125-00	CERAMIC 0.0047MF 10%	50V
				C027	1-110-175-81	MYLAR 0.1MF 10%	100V
				C028	1-101-361-00	CERAMIC 150PF 5%	50V
				C029	1-102-121-00	CERAMIC 0.0022MF 10%	50V
				C030	1-102-953-00	CERAMIC 18PF 5%	50V
				C251	1-124-927-11	ELECT 4.7MF 20%	50V

D

Ref.No.	Part No.	Description			Remark	Ref.No.	Part No.	Description			Remark
C252	1-124-927-11	ELECT	4.7MF	20%	50V	C619	1-124-556-11	ELECT	2200MF	20%	16V
C253	1-124-122-11	ELECT	100MF	20%	50V	C620	1-102-074-00	CERAMIC	0.001MF	10%	50V
C254	1-124-927-11	ELECT	4.7MF	20%	50V	C621	1-124-347-00	ELECT	100MF	20%	160V
C255	1-124-927-11	ELECT	4.7MF	20%	50V	C622	1-124-556-11	ELECT	2200MF	20%	16V
C256	1-110-175-81	MYLAR	0.1MF	10%	100V	C623	1-124-910-11	ELECT	47MF	20%	50V
C257	1-101-004-00	CERAMIC	0.01MF		50V	C624	1-124-122-11	ELECT	100MF	20%	50V
C258	1-110-175-81	MYLAR	0.1MF	10%	100V	C625	1-124-360-00	ELECT	1000MF	20%	16V
C260	1-110-175-81	MYLAR	0.1MF	10%	100V	C626	1-123-875-11	ELECT	10MF	20%	50V
C265	1-102-074-00	CERAMIC	0.001MF	10%	50V	C627	1-102-074-00	CERAMIC	0.001MF	10%	50V
C266	1-102-074-00	CERAMIC	0.001MF	10%	50V	C628	1-124-360-00	ELECT	1000MF	20%	16V
C401	1-124-477-11	ELECT	47MF	20%	16V	C631	1-124-927-11	ELECT	4.7MF	20%	50V
C403	1-124-477-11	ELECT	47MF	20%	16V	C632	1-102-074-00	CERAMIC	0.001MF	10%	50V
C501	1-124-927-11	ELECT	4.7MF	20%	50V	C633	1-124-927-11	ELECT	4.7MF	20%	50V
C502	1-124-927-11	ELECT	4.7MF	20%	50V	C636	1-123-258-91	ELECT	3.3MF	20%	50V
C503	1-110-192-81	MYLAR	0.015MF	10%	400V	C801	1-126-105-11	ELECT	1000MF	20%	35V
C504	1-101-361-00	CERAMIC	150PF	5%	50V	C802	1-102-030-00	CERAMIC	330PF	10%	500V
C505	1-108-794-11	MYLAR	0.0015MF	5%	50V	C804	1-123-948-00	ELECT	22MF	20%	250V
C506	1-110-182-81	MYLAR	0.022MF	10%	250V	C805	1-162-114-00	CERAMIC	0.0047MF		2KV
C507	1-110-327-81	MYLAR	0.33MF	10%	100V	C806	1-110-175-81	MYLAR	0.1MF	10%	100V
C508	1-110-182-81	MYLAR	0.022MF	10%	250V	C807	1-106-395-00	MYLAR	0.15MF	10%	200V
C509	1-110-175-81	MYLAR	0.1MF	10%	100V	C810	1-123-024-00	ELECT	33MF		160V
C510	1-161-959-00	CERAMIC	22PF	10%	500V	C811	1-136-116-00	FILM	1MF	5%	200V
C511	1-108-620-11	MYLAR	0.0033MF	10%	100V	C812	1-123-943-00	ELECT	1MF	20%	250V
C512	1-110-175-81	MYLAR	0.1MF	10%	100V	C813	1-102-212-00	CERAMIC	820PF	10%	500V
C513	1-108-614-11	MYLAR	0.001MF	10%	100V	C814	1-161-731-00	CERAMIC	0.001MF	10%	2KV
C514	1-110-179-81	MYLAR	0.22MF	10%	100V	C815	1-136-116-00	FILM	1MF	5%	200V
C515	1-124-499-11	ELECT	1MF	20%	50V	C817	1-136-549-11	FILM	0.0106MF	3%	1.4KV
C516	1-108-614-11	MYLAR	0.001MF	10%	100V	C818	1-129-721-00	FILM	0.039MF	10%	630V
C517	1-124-252-00	ELECT	0.33MF	20%	50V	C819	1-161-731-11	CERAMIC	0.001MF	10%	2KV
C518	1-124-902-00	ELECT	0.47MF	20%	50V	C820	1-110-189-81	MYLAR	0.0082MF	10%	400V
C519	1-136-173-00	FILM	0.47MF	5%	50V	C821	1-162-116-51	CERAMIC	680PF	10%	2KV
C520	1-102-121-00	CERAMIC	0.0022MF	10%	50V	C822	1-102-114-00	CERAMIC	470PF	10%	50V
C521	1-110-175-81	MYLAR	0.1MF	10%	100V	C823	1-110-186-81	MYLAR	0.0047MF	10%	400V
C522	1-124-122-11	ELECT	100MF	20%	50V	C824	1-102-212-00	CERAMIC	820PF	10%	500V
C523	1-108-614-11	MYLAR	0.001MF	10%	100V	C825	1-110-182-81	MYLAR	0.022MF	10%	250V
C524	1-106-355-12	MYLAR	0.0033MF	5%	50V	C826	1-123-875-11	ELECT	10MF	20%	50V
C525	1-102-973-00	CERAMIC	100PF	5%	50V						
C526	1-102-947-00	CERAMIC	10PF	0.5PF	50V						
C527	1-110-175-81	MYLAR	0.1MF	10%	100V						
C531	1-124-117-00	ELECT	680MF	10%	25V						
C532	1-124-122-11	ELECT	100MF	20%	50V	CF001	1-567-686-11	OSCILLATOR, CERAMIC			
C533	1-110-173-81	MYLAR	0.068MF	10%	100V	CF501	1-567-888-11	OSCILLATOR, CERAMIC			
C534	1-124-120-11	ELECT	220MF	20%	16V						
C536	1-131-363-00	TANTALUM	4.7MF	10%	16V						
C537	1-124-499-11	ELECT	1MF	20%	50V						
C538	1-108-614-11	MYLAR	0.001MF	10%	100V	CN801	*1-508-765-00	3P PLUG (M)			
C539	1-102-820-00	CERAMIC	330PF	5%	50V	CND01	*1-564-884-11	PLUG, CONNECTOR 7P			
C591	1-123-875-11	ELECT	10MF	20%	50V	CND02	*1-564-886-11	PLUG, CONNECTOR 9P			
C592	1-124-477-11	ELECT	47MF	20%	16V	CND11	*1-566-660-11	CONNECTOR, HINGE (PLUG) 18P			
C593	1-102-820-00	CERAMIC	330PF	5%	50V	CND12	*1-564-884-11	PLUG, CONNECTOR 7P			
C601	1-161-964-00	CERAMIC	0.0047MF		250V	CND21	*1-564-346-00	CONNECTOR, BOARD TO BOARD 18P			
C602	1-161-964-00	CERAMIC	0.0047MF		250V	CND23	*1-560-124-00	PLUG, CONNECTOR (2.5MM PITCH)			
C603	1-161-964-00	CERAMIC	0.0047MF		250V	CND31	*1-564-346-00	CONNECTOR, BOARD TO BOARD 18P			
C604	1-125-318-00	ELECT(BLOCK)	220MF	20%	400V	CND41	*1-566-367-11	CONNECTOR, HINGE (RECEPTACLE)			
C605	1-124-122-11	ELECT	100MF	20%	50V	CND45	*1-564-882-11	PLUG, CONNECTOR 5P			
C606	1-110-175-81	MYLAR	0.1MF	10%	100V	CND51	*1-566-367-11	CONNECTOR, HINGE (RECEPTACLE)			
C607	1-130-019-00	FILM	0.0012MF	5%	50V	CND64	*1-506-349-21	3P PLUG (L)			
C608	1-123-875-11	ELECT	10MF	20%	50V	CND68	*1-564-879-11	PLUG, CONNECTOR 2P			
C611	1-124-122-11	ELECT	100MF	20%	50V	CND82	*1-508-765-00	3P PLUG (M)			
C612	1-162-115-00	CERAMIC	330PF	10%	2KV	CND83	*1-508-786-00	2P PLUG (M)			
C613	1-136-088-00	FILM	0.0022MF	3%	2KV	CND84	*1-564-038-00	CONNECTOR PLUG, DY (MINI) 6P			
C614	1-102-030-00	CERAMIC	330PF	10%	500V	CND91	*1-560-123-00	PLUG, CONNECTOR (2.5MM) 3P			
C615	1-124-557-11	ELECT	1000MF	20%	25V	CND92	*1-560-125-00	PLUG, CONNECTOR (2.5MM) 5P			
C616	1-102-030-00	CERAMIC	330PF	10%	500V	CND94	*1-560-123-00	PLUG, CONNECTOR (2.5MM PITCH)			
C618	1-124-637-11	ELECT	1000MF	20%	50V						

The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

**D**

Ref.No. Part No. Description

DIODE

D001	8-719-911-19	DIODE 1SS119
D002	8-719-911-19	DIODE 1SS119
D003	8-719-911-19	DIODE 1SS119
D004	8-719-911-19	DIODE 1SS119
D005	8-719-109-71	DIODE RD3.9ES-B1
D007	8-719-109-89	DIODE RD5.6ES-B2
D008	8-719-110-85	DIODE RD36ES-B4
D009	8-719-109-89	DIODE RD5.6ES-B2
D011	8-719-911-19	DIODE 1SS119
D012	8-719-911-19	DIODE 1SS119
D013	8-719-911-19	DIODE 1SS119
D254	8-719-110-14	DIODE RD9.1ES-B3
D501	8-719-911-19	DIODE 1SS119
D504	8-719-911-55	DIODE U05G
D506	8-719-000-12	DIODE MC931
D508	8-719-911-19	DIODE 1SS119
D511	8-719-911-55	DIODE U05G
D512	8-719-911-55	DIODE U05G
D513	8-719-109-81	DIODE RD4.7ES-B2
D591	8-719-911-19	DIODE 1SS119
D592	8-719-911-19	DIODE 1SS119
D593	8-719-911-19	DIODE 1SS119
D601	8-719-946-90	DIODE KBU4JL-6088
D602	8-719-924-06	DIODE ERC24-06S
D603	8-719-911-55	DIODE U05G
D604	8-719-911-55	DIODE U05G
D605	8-719-911-55	DIODE U05G
D606	8-719-924-06	DIODE ERC24-06S
D607	8-719-924-06	DIODE ERC24-06S
D608	8-719-925-06	DIODE ERC25-06S
D610	8-719-300-59	DIODE CTU-12S
D611	8-719-928-08	DIODE ERD28-06S
D612	8-719-300-59	DIODE CTU-12S
D613	8-719-924-06	DIODE ERC24-06S
D614	8-719-924-06	DIODE ERC24-06S
D615	8-719-109-90	DIODE RD5.6ES-B3
D616	8-719-109-93	DIODE RD6.2ES-B2
D617	8-719-109-93	DIODE RD6.2ES-B2
D618	8-719-109-89	DIODE RD5.6ES-B2
D619	8-719-109-89	DIODE RD5.6ES-B2
D620	8-719-000-12	DIODE MC931
D621	8-719-000-12	DIODE MC931
D622	8-719-911-19	DIODE 1SS119
D623	8-719-911-19	DIODE 1SS119
D624	8-719-911-19	DIODE 1SS119
D627	8-719-911-19	DIODE 1SS119
D630	8-719-110-39	DIODE RD15ES-B1
D632	8-719-110-16	DIODE RD10ES-B1
D633	8-719-911-19	DIODE 1SS119
D801	8-719-924-06	DIODE ERC24-06S
D802	8-719-924-06	DIODE ERC24-06S
D803	8-719-300-65	DIODE ES1F
D804	8-719-911-55	DIODE U05G
D805	8-719-911-55	DIODE U05G
D806	8-719-945-80	DIODE ERC06-15S
D808	8-719-928-08	DIODE ERD28-08S
D809	8-719-924-06	DIODE ERC24-06S

IC

IC001	8-759-630-06	IC M50436-614SP
IC002	8-759-971-68	IC MB88503H-597G
IC003	8-759-603-41	IC M58655P

Remark

Ref.No. Part No. Description

Remark

IC004	8-759-157-40	IC UPC574J
IC251	8-759-803-31	IC LA4280
	*4-368-683-01	SPRING; IC251
IC401	8-759-913-13	IC CX20061
IC501	8-759-970-73	IC TEA2028B
IC502	8-759-944-57	IC TDA8170
IC601	8-759-946-23	IC TEA2164
	*4-386-642-01	HEAT SINK, IC; IC601

COIL

L001	1-410-475-21	INDUCTOR 27UH
L501	1-408-225-00	INDUCTOR 3.3UH
L601	*1-420-872-00	COIL, AIR CORE
L602	1-410-396-41	FERRITE BEAD INDUCTOR
L603	1-410-396-41	FERRITE BEAD INDUCTOR
L605	1-459-442-00	COIL (WITH CORE)
L606	1-421-013-00	COIL, (HORIZONTAL CHOKE) 25UH
L607	1-410-482-31	INDUCTOR 100UH
L803	1-459-104-00	COIL, DUST CORE
L804	1-408-239-00	INDUCTOR 4.7MMH
L805	1-459-652-11	HLC
L806	1-459-115-00	COIL, DCC-H
L807	1-408-242-00	INDUCTOR 10MMH
L809	*1-420-872-00	COIL, AIR CORE
L810	1-459-390-00	COIL (WITH CORE)

IC LINK

PS601A	1-532-984-91	LINK, IC
PS602A	1-532-675-91	LINK, IC

TRANSISTOR

Q001	8-729-178-54	TRANSISTOR 2SC2785
Q002	8-729-117-54	TRANSISTOR 2SA1175
Q003	8-729-117-54	TRANSISTOR 2SA1175
Q004	8-729-117-54	TRANSISTOR 2SA1175
Q252	8-729-900-36	TRANSISTOR DTC124ES
Q501	8-729-117-54	TRANSISTOR 2SA1175
Q502	8-729-117-54	TRANSISTOR 2SA1175
Q503	8-729-178-54	TRANSISTOR 2SC2785
Q505	8-729-177-43	TRANSISTOR 2SD774
Q506	8-729-103-43	TRANSISTOR 2SB734
Q507	8-729-117-54	TRANSISTOR 2SA1175
Q591	8-729-178-54	TRANSISTOR 2SC2785
Q598	8-729-178-54	TRANSISTOR 2SC2785
Q601	8-729-904-32	TRANSISTOR 2SB1185-E
Q602	8-729-209-02	TRANSISTOR 2SD1548-LB
	*4-368-683-01	SPRING; Q602
Q603	8-729-904-32	TRANSISTOR 2SB1185-E
Q604	8-729-308-92	TRANSISTOR 2SD789-03C
Q605	8-729-178-54	TRANSISTOR 2SC2785
Q606	8-729-178-54	TRANSISTOR 2SC2785
Q607	8-729-904-27	TRANSISTOR 2SD1761-E
Q608	8-729-904-27	TRANSISTOR 2SD1761-E
	*4-368-683-01	SPRING; Q608
Q609	8-729-308-92	TRANSISTOR 2SD789-03C
Q801	8-729-178-54	TRANSISTOR 2SC2785
Q804	8-729-304-50	TRANSISTOR 2SD1941-06
	*4-368-683-01	SPRING; Q804
Q805	8-729-168-82	TRANSISTOR 2SC2688

Ref.No.	Part No.	Description				Remark	Ref.No.	Part No.	Description				Remark
RESISTOR							R068	1-249-421-11	CARBON	2.2K	5%	1/4W	
							R069	1-249-423-11	CARBON	3.3K	5%	1/4W	
R001	1-249-417-11	CARBON	1K	5%	1/4W		R070	1-249-417-11	CARBON	1K	5%	1/4W	
R002	1-249-417-11	CARBON	1K	5%	1/4W		R071	1-249-417-11	CARBON	1K	5%	1/4W	
R003	1-249-417-11	CARBON	1K	5%	1/4W		R072	1-249-417-11	CARBON	1K	5%	1/4W	
R004	1-249-417-11	CARBON	1K	5%	1/4W								
R005	1-249-411-11	CARBON	330	5%	1/4W		R073	1-249-417-11	CARBON	1K	5%	1/4W	
							R074	1-249-417-11	CARBON	1K	5%	1/4W	
R006	1-249-417-11	CARBON	1K	5%	1/4W		R075	1-249-417-11	CARBON	1K	5%	1/4W	
R007	1-249-405-11	CARBON	100	5%	1/4W		R077	1-249-413-11	CARBON	470	5%	1/4W	
R008	1-249-417-11	CARBON	1K	5%	1/4W		R078	1-249-423-11	CARBON	3.3K	5%	1/4W	
R009	1-249-417-11	CARBON	1K	5%	1/4W								
R010	1-249-413-11	CARBON	470	5%	1/4W		R079	1-249-435-11	CARBON	33K	5%	1/4W	
							R080	1-249-429-11	CARBON	10K	5%	1/4W	
R011	1-249-417-11	CARBON	1K	5%	1/4W		R081	1-249-441-11	CARBON	100K	5%	1/4W	
R012	1-249-417-11	CARBON	1K	5%	1/4W		R083	1-249-429-11	CARBON	10K	5%	1/4W	
R013	1-249-417-11	CARBON	1K	5%	1/4W		R084	1-249-413-11	CARBON	470	5%	1/4W	
R014	1-249-417-11	CARBON	1K	5%	1/4W								
R016	1-249-429-11	CARBON	10K	5%	1/4W		R085	1-249-429-11	CARBON	10K	5%	1/4W	
							R086	1-249-417-11	CARBON	1K	5%	1/4W	
R017	1-249-417-11	CARBON	1K	5%	1/4W		R087	1-249-417-11	CARBON	1K	5%	1/4W	
R018	1-249-417-11	CARBON	1K	5%	1/4W		R088	1-249-425-11	CARBON	4.7K	5%	1/4W	
R019	1-249-433-11	CARBON	22K	5%	1/4W		R090	1-249-413-11	CARBON	470	5%	1/4W	
R020	1-249-433-11	CARBON	22K	5%	1/4W								
R021	1-249-433-11	CARBON	22K	5%	1/4W		R091	1-249-409-11	CARBON	220	5%	1/4W	
							R093	1-249-429-11	CARBON	10K	5%	1/4W	
R022	1-249-433-11	CARBON	22K	5%	1/4W		R094	1-249-429-11	CARBON	10K	5%	1/4W	
R023	1-249-429-11	CARBON	10K	5%	1/4W		R095	1-249-409-11	CARBON	220	5%	1/4W	
R024	1-249-429-11	CARBON	10K	5%	1/4W		R096	1-249-409-11	CARBON	220	5%	1/4W	
R025	1-249-417-11	CARBON	1K	5%	1/4W								
R026	1-249-417-11	CARBON	1K	5%	1/4W		R097	1-249-429-11	CARBON	10K	5%	1/4W	
							R098	1-249-429-11	CARBON	10K	5%	1/4W	
R027	1-249-417-11	CARBON	1K	5%	1/4W		R099	1-215-900-11	METAL OXIDE	22K	5%	2W	F
R028	1-249-417-11	CARBON	1K	5%	1/4W		R251	1-249-417-11	CARBON	1K	5%	1/4W	
R029	1-249-417-11	CARBON	1K	5%	1/4W		R252	1-249-413-11	CARBON	470	5%	1/4W	
R030	1-249-425-11	CARBON	4.7K	5%	1/4W								
R031	1-249-429-11	CARBON	10K	5%	1/4W		R253	1-249-413-11	CARBON	470	5%	1/4W	
							R255	1-249-385-11	CARBON	2.2	5%	1/4W	F
R032	1-249-417-11	CARBON	1K	5%	1/4W		R256	1-249-385-11	CARBON	2.2	5%	1/4W	F
R033	1-249-413-11	CARBON	470	5%	1/4W		R260	1-249-393-11	CARBON	10	5%	1/4W	
R034	1-249-413-11	CARBON	470	5%	1/4W		R261	1-249-429-11	CARBON	10K	5%	1/4W	
R035	1-249-431-11	CARBON	15K	5%	1/4W								
R036	1-249-421-11	CARBON	2.2K	5%	1/4W		R262	1-249-413-11	CARBON	470	5%	1/4W	
							R263	1-249-421-11	CARBON	2.2K	5%	1/4W	
R037	1-249-417-11	CARBON	1K	5%	1/4W		R264	1-249-421-11	CARBON	2.2K	5%	1/4W	
R038	1-249-417-11	CARBON	1K	5%	1/4W		R265	1-249-425-11	CARBON	4.7K	5%	1/4W	
R039	1-249-417-11	CARBON	1K	5%	1/4W		R266	1-249-425-11	CARBON	4.7K	5%	1/4W	
R040	1-249-417-11	CARBON	1K	5%	1/4W								
R041	1-249-417-11	CARBON	1K	5%	1/4W		R401	1-249-434-11	CARBON	27K	5%	1/4W	
							R402	1-249-435-11	CARBON	33K	5%	1/4W	
R042	1-249-417-11	CARBON	1K	5%	1/4W		R410	1-249-413-11	CARBON	470	5%	1/4W	
R043	1-249-417-11	CARBON	1K	5%	1/4W		R411	1-249-413-11	CARBON	470	5%	1/4W	
R044	1-249-429-11	CARBON	10K	5%	1/4W		R412	1-249-413-11	CARBON	470	5%	1/4W	
R045	1-249-417-11	CARBON	1K	5%	1/4W								
R046	1-249-429-11	CARBON	10K	5%	1/4W		R500	1-247-897-11	CARBON	560K	5%	1/4W	
							R501	1-249-413-11	CARBON	470	5%	1/4W	
R048	1-249-417-11	CARBON	1K	5%	1/4W		R502	1-249-409-11	CARBON	220	5%	1/4W	
R049	1-249-417-11	CARBON	1K	5%	1/4W		R503	1-249-410-11	CARBON	270	5%	1/4W	
R050	1-249-433-11	CARBON	22K	5%	1/4W		R504	1-215-427-00	METAL	1.8K	1%	1/6W	
R051	1-249-429-11	CARBON	10K	5%	1/4W								
R052	1-249-439-11	CARBON	68K	5%	1/4W		R505	1-249-431-11	CARBON	15K	5%	1/4W	
							R506	1-249-428-11	CARBON	8.2K	5%	1/4W	
R053	1-249-437-11	CARBON	47K	5%	1/4W		R507	1-247-891-00	CARBON	330K	5%	1/4W	
R054	1-249-417-11	CARBON	1K	5%	1/4W		R509	1-249-424-11	CARBON	3.9K	5%	1/4W	
R055	1-249-433-11	CARBON	22K	5%	1/4W		R510	1-249-426-11	CARBON	5.6K	5%	1/4W	
R056	1-249-440-11	CARBON	82K	5%	1/4W								
R057	1-249-409-11	CARBON	220	5%	1/4W		R511	1-249-429-11	CARBON	10K	5%	1/4W	
							R512	1-247-891-00	CARBON	330K	5%	1/4W	
R058	1-249-409-11	CARBON	220	5%	1/4W		R513	1-249-429-11	CARBON	10K	5%	1/4W	
R059	1-249-435-11	CARBON	33K	5%	1/4W		R514	1-249-409-11	CARBON	220	5%	1/4W	
R060	1-249-436-11	CARBON	39K	5%	1/4W		R515	1-249-423-11	CARBON	3.3K	5%	1/4W	
R061	1-249-417-11	CARBON	1K	5%	1/4W								
R062	1-249-411-11	CARBON	330	5%	1/4W		R516	1-249-408-11	CARBON	180	5%	1/4W	
							R517	1-249-429-11	CARBON	10K	5%	1/4W	
R063	1-249-431-11	CARBON	15K	5%	1/4W		R518	1-249-437-11	CARBON	47K	5%	1/4W	
R064	1-249-429-11	CARBON	10K	5%	1/4W		R519	1-249-433-11	CARBON	22K	5%	1/4W	
R067	1-249-413-11	CARBON	470	5%	1/4W		R520	1-249-411-11	CARBON	330	5%	1/4W	

D

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R521	1-249-405-11	CARBON	100 5% 1/4W	R621	1-249-431-11	CARBON	15K 5% 1/4W
R522	1-215-469-00	METAL	100K 1% 1/6W	R622	1-249-429-11	CARBON	10K 5% 1/4W
R523	1-249-417-11	CARBON	1K 5% 1/4W	R623	1-249-377-11	CARBON	0.47 5% 1/4W F
R524	1-249-421-11	CARBON	2.2K 5% 1/4W	R624	1-249-411-11	CARBON	330 5% 1/4W
R525	1-249-417-11	CARBON	1K 5% 1/4W	R625	1-218-017-51	METAL OXIDE	220 5% 1W
R526	1-249-409-11	CARBON	220 5% 1/4W F	R626	1-249-411-11	CARBON	330 5% 1/4W
R527	1-249-431-11	CARBON	15K 5% 1/4W	R627	1-218-019-51	METAL OXIDE	330 5% 1W
R528	1-249-408-11	CARBON	180 5% 1/4W	R628	1-249-393-11	CARBON	10 5% 1/4W
R529	1-249-427-11	CARBON	6.8K 5% 1/4W	R629	1-249-411-11	CARBON	330 5% 1/4W
R530	1-249-448-11	CARBON	1.2 5% 1/4W F	R630	1-249-437-11	CARBON	47K 5% 1/4W
R533	1-249-408-11	CARBON	180 5% 1/4W	R633	1-249-405-11	CARBON	100 5% 1/4W
R534	1-247-901-11	CARBON	820K 5% 1/4W	R634	1-218-020-51	METAL OXIDE	390 5% 1W
R535	1-249-753-15	CARBON	4.7M 5% 1/4W	R635	1-249-429-11	CARBON	10K 5% 1/4W
R536	1-249-749-00	CARBON	2.2M 5% 1/4W	R636	1-249-429-11	CARBON	10K 5% 1/4W
R537	1-249-434-11	CARBON	27K 5% 1/4W	R642	1-216-343-00	METAL OXIDE	0.33 5% 1W F
R538	1-247-883-00	CARBON	150K 5% 1/4W	R643	1-217-192-21	WIREWOUND	0.22 10% 2W F
R539	1-247-883-00	CARBON	150K 5% 1/4W	R647	1-216-485-11	METAL OXIDE	5.6K 5% 3W F
R540	1-249-399-11	CARBON	33 5% 1/4W	R648	1-216-485-11	METAL OXIDE	5.6K 5% 3W F
R541	1-249-438-11	CARBON	56K 5% 1/4W	R650	1-249-417-11	CARBON	1K 5% 1/4W
R542	1-249-425-11	CARBON	4.7K 5% 1/4W	R651	1-249-405-11	CARBON	100 5% 1/4W
R543	1-215-088-00	METAL	2.2 5% 1/4W	R652	1-247-903-00	CARBON	1M 5% 1/4W
R544	1-247-745-11	CARBON	330 5% 1/2W	R802	1-249-443-11	CARBON	0.47 5% 1/4W F
R545	1-249-436-11	CARBON	39K 5% 1/4W	R805	1-249-448-11	CARBON	1.2 5% 1/4W F
R546	1-249-434-11	CARBON	27K 5% 1/4W	R806	1-249-439-11	CARBON	68K 5% 1/4W
R547	1-249-426-11	CARBON	5.6K 5% 1/4W	R807	1-218-025-51	METAL OXIDE	1K 5% 1W
R548	1-216-350-11	METAL OXIDE	1.2 5% 1W F	R809	1-202-821-11	SOL ID	1.8K 10% 1/2W
R549	1-215-890-11	METAL OXIDE	470 5% 2W F	R810	1-202-818-00	SOL ID	1K 10% 1/2W
R550	1-249-440-11	CARBON	82K 5% 1/4W	R811	1-218-013-51	METAL OXIDE	100 5% 1W
R551	1-249-749-00	CARBON	2.2M 5% 1/4W	R812	1-244-917-00	CARBON	68K 5% 1/2W
R552	1-218-026-51	METAL OXIDE	1.2K 5% 1W	R815	1-215-884-11	METAL OXIDE	47 5% 2W F
R553	1-218-025-51	METAL OXIDE	1K 5% 1W	R816	1-218-023-51	METAL OXIDE	680 5% 1W
R554	1-249-411-11	CARBON	330 5% 1/4W	R817	1-249-417-11	CARBON	1K 5% 1/4W
R555	1-249-749-00	CARBON	2.2M 5% 1/4W	R820	1-249-403-11	CARBON	68 5% 1/4W
R556	1-249-405-11	CARBON	100 5% 1/4W	R821	1-247-725-11	CARBON	10K 5% 1/4W F
R557	1-249-425-11	CARBON	4.7K 5% 1/4W	R822	1-217-778-11	FUSIBLE	1K 5% 1W F
R558	1-247-895-00	CARBON	470K 5% 1/4W	R825	1-216-349-00	METAL OXIDE	1 5% 1W F
R559	1-249-427-11	CARBON	6.8K 5% 1/4W	R826	1-249-441-11	CARBON	100K 5% 1/4W
R560	1-249-411-11	CARBON	330 5% 1/4W	R827	1-249-429-11	CARBON	10K 5% 1/4W
R591	1-249-427-11	CARBON	6.8K 5% 1/4W	R828	1-249-423-11	CARBON	3.3K 5% 1/4W
R592	1-249-429-11	CARBON	10K 5% 1/4W	R829	1-249-418-11	CARBON	1.2K 5% 1/4W
R593	1-249-429-11	CARBON	10K 5% 1/4W	R830	1-249-429-11	CARBON	10K 5% 1/4W
R594	1-249-424-11	CARBON	3.9K 5% 1/4W	R831	1-215-088-00	METAL	2.2 5% 1/4W
R595	1-249-417-11	CARBON	1K 5% 1/4W	R1001	1-249-421-11	CARBON	2.2K 5% 1/4W
R596	1-249-425-11	CARBON	4.7K 5% 1/4W	R1002	1-249-423-11	CARBON	3.3K 5% 1/4W
R597	1-249-425-11	CARBON	4.7K 5% 1/4W	R1003	1-249-413-11	CARBON	470 5% 1/4W
R598	1-249-405-11	CARBON	100 5% 1/4W	R1004	1-249-408-11	CARBON	180 5% 1/4W
R599	1-249-405-11	CARBON	100 5% 1/4W	R1005	1-249-408-11	CARBON	180 5% 1/4W
R602	1-215-901-00	METAL OXIDE	33K 5% 2W F	R1006	1-249-408-11	CARBON	180 5% 1/4W
R603	1-216-359-00	METAL OXIDE	6.8 5% 1W F	R1007	1-249-408-11	CARBON	180 5% 1/4W
R604	1-249-414-11	CARBON	560 5% 1/4W	R1009	1-249-417-11	CARBON	1K 5% 1/4W
R605	1-215-469-00	METAL	100K 1% 1/6W	R5501	1-249-429-11	CARBON	10K 5% 1/4W
R606	1-247-850-11	CARBON	6.2K 5% 1/4W	R5502	1-249-417-11	CARBON	1K 5% 1/4W
R607	1-249-434-11	CARBON	27K 5% 1/4W	R5503	1-249-389-11	CARBON	4.7 5% 1/4W
R608	1-215-901-00	METAL OXIDE	33K 5% 2W F	R5504	1-247-903-00	CARBON	1M 5% 1/4W
R609	1-249-401-11	CARBON	47 5% 1/4W	R5505	1-249-393-11	CARBON	10 5% 1/4W
R610	1-249-385-11	CARBON	2.2 5% 1/4W F	VARIABLE RESISTOR			
R611	1-249-385-11	CARBON	2.2 5% 1/4W F	RV501	1-228-991-00	RES, ADJ, CARBON 2.2K	
R612	1-217-193-00	WIREWOUND	0.27 10% 2W F	RV502	1-230-630-11	RES, ADJ, CARBON 10K	
R613	1-249-401-11	CARBON	47 5% 1/4W	RV601	1-228-990-00	RES, ADJ, CARBON 1K	
R614	1-205-919-11	WIREWOUND	220 10% 10W F	SPARK GAP			
R616	1-249-417-11	CARBON	1K 5% 1/4W	SG801	1-519-063-XX	DISCHARGING GAP	
R617	1-249-411-11	CARBON	330 5% 1/4W				
R618	1-218-022-51	METAL OXIDE	560 5% 1W				
R619	1-249-429-11	CARBON	10K 5% 1/4W				
R620	1-249-433-11	CARBON	22K 5% 1/4W				



The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

KV-X21TM  
RM-673

D

V

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
<u>TRANSFORMER</u>							
T601	$\Delta$ 1-448-961-11	S.R.T		D03	8-719-911-19	DIODE 1SS119	
T602	$\Delta$ 1-424-011-11	TRANSFORMER, PULSE		D04	8-719-109-69	DIODE RD3.6ES-B2	
T801	1-437-090-00	HDT		D07	8-719-109-96	DIODE RD6.8ES-B1	
				D08	8-719-109-96	DIODE RD6.8ES-B1	
<u>TERMINAL PIN</u>				<u>IC</u>			
TP91	*1-535-084-00	1P TERMINAL PIN		IC01	8-759-972-41	IC MAB8461P-W136	
*****				IC02	8-759-972-96	IC SAA5231-V6	
*A-1347-014-A V BOARD, COMPLETE				IC03	8-759-946-85	IC SAA5243E	
*****				IC04	8-759-113-01	IC UPD4364CX-15L	
<u>CAPACITOR</u>				<u>COIL</u>			
C01	1-126-101-11	ELECT	100MF	L01	1-408-411-00	INDUCTOR	15UH
C02	1-124-120-11	ELECT	220MF	L02	1-410-468-11	INDUCTOR	6.8UH
C03	1-124-119-00	ELECT	330MF	L03	1-410-468-11	INDUCTOR	6.8UH
C04	1-124-477-11	ELECT	47MF	L04	1-410-468-11	INDUCTOR	6.8UH
C05	1-126-101-11	ELECT	100MF	L05	1-410-468-11	INDUCTOR	6.8UH
C06	1-124-120-11	ELECT	220MF	L06	1-410-468-11	INDUCTOR	6.8UH
C07	1-124-499-11	ELECT	1MF	<u>TRANSISTOR</u>			
C08	1-102-951-00	CERAMIC	15PF	Q01	8-729-904-27	TRANSISTOR 2SD1761-E	
C09	1-102-074-00	CERAMIC	0.001MF	Q02	8-729-906-02	TRANSISTOR 2SC2060	
C10	1-102-824-00	CERAMIC	470PF	Q03	8-729-900-80	TRANSISTOR DTC114ES	
C11	1-110-182-81	MYLAR	0.022MF	Q04	8-729-178-54	TRANSISTOR 2SC2785	
C12	1-102-980-00	CERAMIC	270PF	Q05	8-729-906-02	TRANSISTOR 2SC2060	
C13	1-102-973-00	CERAMIC	100PF	Q06	8-729-178-54	TRANSISTOR 2SC2785	
C14	1-102-951-00	CERAMIC	15PF	Q07	8-729-178-54	TRANSISTOR 2SC2785	
C15	1-102-961-00	CERAMIC	27PF	Q09	8-729-117-54	TRANSISTOR 2SA1175	
C16	1-110-190-81	MYLAR	0.01MF	Q10	8-729-117-54	TRANSISTOR 2SA1175	
C17	1-110-171-81	MYLAR	0.047MF	Q11	8-729-117-54	TRANSISTOR 2SA1175	
C18	1-102-953-00	CERAMIC	18PF	<u>RESISTOR</u>			
C19	1-110-171-81	MYLAR	0.047MF	R01	1-215-867-00	METAL OXIDE	470 5% 1W F
C20	1-102-978-00	CERAMIC	220PF	R02	1-249-425-11	CARBON	4.7K 5% 1/4W
C21	1-110-173-81	MYLAR	0.068MF	R04	1-215-867-00	METAL OXIDE	470 5% 1W F
C24	1-126-101-11	ELECT	100MF	R05	1-215-128-00	METAL	100 5% 1/4W
C25	1-124-477-11	ELECT	47MF	R06	1-249-417-11	CARBON	1K 5% 1/4W
C27	1-102-820-00	CERAMIC	330PF	R07	1-249-405-11	CARBON	100 5% 1/4W
C28	1-102-116-00	CERAMIC	680PF	R08	1-249-411-11	CARBON	330 5% 1/4W
C29	1-124-927-11	ELECT	4.7MF	R09	1-249-438-11	CARBON	56K 5% 1/4W
C51	1-110-175-81	MYLAR	0.1MF	R13	1-249-405-11	CARBON	100 5% 1/4W
C52	1-110-175-81	MYLAR	0.1MF	R14	1-249-405-11	CARBON	100 5% 1/4W
C53	1-110-175-81	MYLAR	0.1MF	R15	1-247-903-00	CARBON	1M 5% 1/4W
C54	1-110-175-81	MYLAR	0.1MF	R16	1-249-420-11	CARBON	1.8K 5% 1/4W
C55	1-110-175-81	MYLAR	0.1MF	R17	1-249-417-11	CARBON	1K 5% 1/4W
C56	1-110-175-81	MYLAR	0.1MF	R18	1-249-425-11	CARBON	4.7K 5% 1/4W
C57	1-102-074-00	CERAMIC	0.001MF	R19	1-249-411-11	CARBON	330 5% 1/4W
C58	1-102-074-00	CERAMIC	0.001MF	R20	1-215-146-00	METAL	560 5% 1/4W
C59	1-102-074-00	CERAMIC	0.001MF	R27	1-249-399-11	CARBON	33 5% 1/4W
<u>FILM</u>				R28	1-249-399-11	CARBON	33 5% 1/4W
CP01	1-235-977-11	NETWORK, RES, THICK FILM		R29	1-249-399-11	CARBON	33 5% 1/4W
CP02	1-235-977-11	NETWORK, RES, THICK FILM		R30	1-215-130-00	METAL	120 5% 1/4W
<u>TRIMMER</u>				R31	1-215-130-00	METAL	120 5% 1/4W
CT01	1-141-181-11	CAP, TRIMMER		R32	1-215-130-00	METAL	120 5% 1/4W
<u>DIODE</u>				R33	1-249-404-00	CARBON	82 5% 1/4W
D01	8-719-109-89	DIODE RD5.6ES-B2		R34	1-249-417-11	CARBON	1K 5% 1/4W
D02	8-719-110-36	DIODE RD13ES-B2		R37	1-249-405-11	CARBON	100 5% 1/4W
				R38	1-249-416-11	CARBON	820 5% 1/4W
				R40	1-249-425-11	CARBON	4.7K 5% 1/4W
				R41	1-249-413-11	CARBON	470 5% 1/4W
				R43	1-249-425-11	CARBON	4.7K 5% 1/4W
				R44	1-249-413-11	CARBON	470 5% 1/4W

V

J1

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R45	1-215-152-00	METAL 1K 5% 1/4W		C1504	1-124-910-11	ELECT 47MF 20% 50V	
R46	1-247-779-00	CARBON 6.8 5% 1/4W		C1505	1-110-171-81	MYLAR 0.047MF 10% 100V	
<u>VARIABLE RESISTOR</u>				C1507	1-108-620-11	MYLAR 0.0033MF 10% 100V	
RV01	1-230-624-51	RES, ADJ, CARBON 220		C1508	1-123-875-11	ELECT 10MF 20% 50V	
<u>CONNECTOR</u>				C1509	1-124-499-11	ELECT 1MF 20% 50V	
V1	*1-560-123-00	PLUG, CONNECTOR (2.5MM) 3P		C1511	1-123-875-11	ELECT 10MF 20% 50V	
V2	*1-560-125-00	PLUG, CONNECTOR (2.5MM) 5P		C1512	1-110-188-81	MYLAR 0.0068MF 10% 400V	
V3	*1-560-126-00	PLUG, CONNECTOR (2.5MM) 6P		C1513	1-102-963-00	CERAMIC 33PF 5% 50V	
V4	*1-560-123-00	PLUG, CONNECTOR (2.5MM PITCH)		C1514	1-110-183-81	MYLAR 0.027MF 10% 250V	
V5	*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)		C1515	1-102-117-00	CERAMIC 820PF 10% 50V	
V6	*1-508-784-00	1P PLUG		<u>CONNECTOR</u>			
<u>CRYSTAL</u>				CN1401	1-536-996-11	TERMINAL BOARD, INPUT/OUTPUT	
X01	1-567-162-00	OSCILLATOR, CRYSTAL		CN1402	1-561-534-41	SOCKET 21P	
X02	1-567-495-11	OSCILLATOR, CRYSTAL		CN1403	1-561-534-41	SOCKET 21P	
X03	1-567-686-11	OSCILLATOR, CERAMIC		CNJ25	*1-564-892-41	PLUG, CONNECTOR 3P	
*****				CNJ41	*1-566-641-11	CONNECTOR, HINGE (TAB) 18P	
*A-1371-373-A	J1 BOARD, COMPLETE	*****		CNJ43	*1-564-893-11	PLUG, CONNECTOR 4P	
<u>CAPACITOR</u>				CNJ45	*1-564-894-11	PLUG, CONNECTOR 5P	
C1401	1-123-875-11	ELECT 10MF 20% 50V		CNJ51	*1-566-641-11	CONNECTOR, HINGE (TAB) 18P	
C1402	1-126-103-11	ELECT 470MF 20% 16V		CNJ67	*1-560-721-21	PLUG, CONNECTOR 2P	
C1403	1-102-112-00	CERAMIC 330PF 10% 50V		CNJ142	*1-564-893-11	PLUG, CONNECTOR 4P	
C1404	1-124-902-00	ELECT 0.47MF 20% 50V		<u>DIODE</u>			
C1405	1-101-003-00	CERAMIC 0.0047MF 50V		D1401	8-719-110-04	DIODE RD7.5ES-B3	
C1406	1-124-902-00	ELECT 0.47MF 20% 50V		D1403	8-719-110-04	DIODE RD7.5ES-B3	
C1407	1-124-477-11	ELECT 47MF 20% 16V		D1404	8-719-110-04	DIODE RD7.5ES-B3	
C1408	1-126-101-11	ELECT 100MF 20% 16V		D1405	8-719-110-04	DIODE RD7.5ES-B3	
C1409	1-124-908-11	ELECT 22MF 20% 50V		D1406	8-719-110-04	DIODE RD7.5ES-B3	
C1410	1-123-875-11	ELECT 10MF 20% 50V		D1407	8-719-110-18	DIODE RD10ES-B3	
C1411	1-123-875-11	ELECT 10MF 20% 50V		D1408	8-719-110-14	DIODE RD9.1ES-B3	
C1412	1-124-477-11	ELECT 47MF 20% 16V		D1409	8-719-110-04	DIODE RD7.5ES-B3	
C1413	1-124-477-11	ELECT 47MF 20% 16V		D1410	8-719-110-04	DIODE RD7.5ES-B3	
C1414	1-123-875-11	ELECT 10MF 20% 50V		D1415	8-719-110-04	DIODE RD7.5ES-B3	
C1415	1-124-902-00	ELECT 0.47MF 20% 50V		D1418	8-719-110-04	DIODE RD7.5ES-B3	
C1416	1-124-902-00	ELECT 0.47MF 20% 50V		D1419	8-719-110-04	DIODE RD7.5ES-B3	
C1417	1-124-120-11	ELECT 220MF 20% 16V		D1420	8-719-110-04	DIODE RD7.5ES-B3	
C1418	1-102-112-00	CERAMIC 330PF 10% 50V		D1501	8-719-912-20	DIODE 1SS120	
C1419	1-102-112-00	CERAMIC 330PF 10% 50V		D1502	8-719-911-19	DIODE 1SS119	
C1421	1-124-477-11	ELECT 47MF 20% 16V		D1503	8-719-911-19	DIODE 1SS119	
C1423	1-110-182-81	MYLAR 0.022MF 10% 250V		D1504	8-719-911-19	DIODE 1SS119	
C1424	1-110-182-81	MYLAR 0.022MF 10% 250V		D1505	8-719-000-12	DIODE MC931	
C1425	1-124-902-00	ELECT 0.47MF 20% 50V		D1506	8-719-110-85	DIODE RD36ES-B4	
C1426	1-124-902-00	ELECT 0.47MF 20% 50V		D1507	8-719-911-19	DIODE 1SS119	
C1427	1-101-003-00	CERAMIC 0.0047MF 50V		<u>IC</u>			
C1428	1-101-003-00	CERAMIC 0.0047MF 50V		IC1401	8-752-032-27	IC CXA1114P	
C1429	1-101-003-00	CERAMIC 0.0047MF 50V		IC1402	8-759-946-32	IC TEA2014A	
C1430	1-102-112-00	CERAMIC 330PF 10% 50V		IC1501	8-759-942-16	IC TEA2031A	
C1431	1-124-902-00	ELECT 0.47MF 20% 50V		<u>COIL</u>			
C1432	1-124-902-00	ELECT 0.47MF 20% 50V		L1401	1-412-043-11	INDUCTOR, WIDE BAND	
C1433	1-126-101-11	ELECT 100MF 20% 16V		L1402	1-412-043-11	INDUCTOR, WIDE BAND	
C1436	1-102-074-00	CERAMIC 0.001MF 10% 50V		<u>TRANSISTOR</u>			
C1437	1-102-074-00	CERAMIC 0.001MF 10% 50V		Q1401	8-729-117-54	TRANSISTOR 2SA1175	
C1501	1-123-875-11	ELECT 10MF 20% 50V		Q1402	8-729-117-54	TRANSISTOR 2SA1175	
C1502	1-123-875-11	ELECT 10MF 20% 50V		<u>RESISTOR</u>			
C1503	1-108-614-11	MYLAR 0.001MF 10% 100V		R1401	1-249-404-00	CARBON 82 5% 1/4W	

J1

J2

H3

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R1402	1-215-124-00	METAL	68 5% 1/4W	<u>VARIABLE RESISTOR</u>			
R1403	1-249-437-11	CARBON	47K 5% 1/4W	RV1501	1-228-999-00	RES, ADJ, CARBON 470K	
R1404	1-249-413-11	CARBON	470 5% 1/4W	RV1502	1-228-994-00	RES, ADJ, CARBON 10K	
R1405	1-249-429-11	CARBON	10K 5% 1/4W	RV1503	1-228-995-00	RES, ADJ, CARBON 22K	
R1407	1-247-895-00	CARBON	470K 5% 1/4W	RV1504	1-228-990-00	RES, ADJ, CARBON 1K	
R1408	1-249-434-11	CARBON	27K 5% 1/4W	RV1505	1-228-999-00	RES, ADJ, CARBON 470K	
R1409	1-249-413-11	CARBON	470 5% 1/4W	RV1506	1-228-995-00	RES, ADJ, CARBON 22K	
R1410	1-249-434-11	CARBON	27K 5% 1/4W	RV1507	1-230-504-11	RES, ADJ, CARBON 220	
R1411	1-249-413-11	CARBON	470 5% 1/4W	RV1508	1-228-994-00	RES, ADJ, CARBON 10K	
R1412	1-249-437-11	CARBON	47K 5% 1/4W	RV1509	1-228-999-00	RES, ADJ, CARBON 470K	
R1413	1-247-895-00	CARBON	470K 5% 1/4W	*****			
R1414	1-249-437-11	CARBON	47K 5% 1/4W	*1-625-205-11	J2 BOARD		
R1415	1-249-434-11	CARBON	27K 5% 1/4W	*****			
R1416	1-249-434-11	CARBON	27K 5% 1/4W	<u>CAPACITOR</u>			
R1417	1-249-404-00	CARBON	82 5% 1/4W	C1401	1-126-105-11	ELECT 1000MF 20% 35V	
R1418	1-247-738-11	CARBON	82 5% 1/2W F	C1402	1-126-105-11	ELECT 1000MF 20% 35V	
R1419	1-249-409-11	CARBON	220 5% 1/4W	<u>CONNECTOR</u>			
R1420	1-249-409-11	CARBON	220 5% 1/4W	CNJ23	*1-564-893-11	PLUG, CONNECTOR 4P	
R1422	1-249-417-11	CARBON	1K 5% 1/4W	CNJ242	*1-564-893-11	PLUG, CONNECTOR 4P	
R1423	1-249-434-11	CARBON	27K 5% 1/4W	<u>JACK</u>			
R1424	1-249-434-11	CARBON	27K 5% 1/4W	J1401	1-507-806-00	JACK	
R1425	1-249-417-11	CARBON	1K 5% 1/4W	<u>RESISTOR</u>			
R1426	1-249-417-11	CARBON	1K 5% 1/4W	R1401	1-215-144-00	METAL 470 5% 1/4W	
R1427	1-249-417-11	CARBON	1K 5% 1/4W	R1402	1-215-144-00	METAL 470 5% 1/4W	
R1428	1-247-895-00	CARBON	470K 5% 1/4W	*****			
R1429	1-247-895-00	CARBON	470K 5% 1/4W	*1-625-201-11	H3 BOARD		
R1430	1-215-126-81	METAL	82 5% 1/4W	*****			
R1433	1-249-409-11	CARBON	220 5% 1/4W	<u>CONNECTOR</u>			
R1434	1-249-393-11	CARBON	10 5% 1/4W F	CNH302	*1-564-898-11	PLUG, CONNECTOR 9P	
R1437	1-249-429-11	CARBON	10K 5% 1/4W	CNH303	*1-564-892-41	PLUG, CONNECTOR 3P	
R1440	1-249-415-11	CARBON	680 5% 1/4W	<u>DIODE</u>			
R1441	1-249-415-11	CARBON	680 5% 1/4W	D1405	8-719-812-41	DIODE TLR124	
R1442	1-249-437-11	CARBON	47K 5% 1/4W	*4-348-208-00	HOLDER, LED; D1405		
R1443	1-249-437-11	CARBON	47K 5% 1/4W	<u>SWITCH</u>			
R1444	1-249-409-11	CARBON	220 5% 1/4W	S1401	1-571-085-21	SWITCH, TACTICLE	
R1445	1-249-440-11	CARBON	82K 5% 1/4W	S1402	1-571-085-21	SWITCH, TACTICLE	
R1447	1-249-409-11	CARBON	220 5% 1/4W	S1403	1-571-085-21	SWITCH, TACTICLE	
R1448	1-249-409-11	CARBON	220 5% 1/4W	S1404	1-571-085-21	SWITCH, TACTICLE	
R1452	1-249-412-11	CARBON	390 5% 1/4W	S1405	1-571-085-21	SWITCH, TACTICLE	
R1453	1-249-412-11	CARBON	390 5% 1/4W	S1406	1-571-085-21	SWITCH, TACTICLE	
R1454	1-215-134-00	METAL	180 5% 1/4W	S1407	1-571-085-21	SWITCH, TACTICLE	
R1455	1-215-134-00	METAL	180 5% 1/4W	S1408	1-571-085-21	SWITCH, TACTICLE	
R1456	1-249-405-11	CARBON	100 5% 1/4W	S1409	1-571-085-21	SWITCH, TACTICLE	
R1501	1-249-433-11	CARBON	22K 5% 1/4W	S1410	1-571-085-21	SWITCH, TACTICLE	
R1502	1-249-434-11	CARBON	27K 5% 1/4W	S1411	1-571-085-21	SWITCH, TACTICLE	
R1503	1-247-895-00	CARBON	470K 5% 1/4W	S1412	1-571-085-21	SWITCH, TACTICLE	
R1504	1-249-435-11	CARBON	33K 5% 1/4W	S1414	1-571-085-21	SWITCH, TACTICLE	
R1505	1-249-433-11	CARBON	22K 5% 1/4W				
R1506	1-247-895-00	CARBON	470K 5% 1/4W				
R1509	1-247-887-00	CARBON	220K 5% 1/4W				
R1510	1-249-426-11	CARBON	5.6K 5% 1/4W				
R1511	1-249-417-11	CARBON	1K 5% 1/4W				
R1512	1-249-429-11	CARBON	10K 5% 1/4W				
R1513	1-249-438-11	CARBON	56K 5% 1/4W				
R1514	1-249-417-11	CARBON	1K 5% 1/4W				
R1515	1-247-899-11	CARBON	680K 5% 1/4W				
R1516	1-249-432-11	CARBON	18K 5% 1/4W				
R1517	1-249-410-11	CARBON	270 5% 1/4W				
R1518	1-249-429-11	CARBON	10K 5% 1/4W				
R1519	1-247-883-00	CARBON	150K 5% 1/4W				
R1520	1-247-895-00	CARBON	470K 5% 1/4W				
R1521	1-249-425-11	CARBON	4.7K 5% 1/4W				
R1556	1-249-426-11	CARBON	5.6K 5% 1/4W				

H4

Ks

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
*1-625-202-11	H4 BOARD	*****		CONNECTOR			
*4-387-825-01	HOLDER, LED			CNK21	*1-562-370-21	CONNECTOR, BOARD TO BOARD 18P	
				CNK25	*1-564-880-31	PLUG, CONNECTOR 3P	
CONNECTOR				DIODE			
CNH401	*1-564-884-11	PLUG, CONNECTOR 7P		D201	8-719-110-14	DIODE RD9.1ES-B3	
CNH403	*1-564-880-31	PLUG, CONNECTOR 3P		D202	8-719-110-14	DIODE RD9.1ES-B3	
DIODE				D205	8-719-110-04	DIODE RD7.5ES-B3	
D1401	8-719-101-08	DIODE SR108D		D206	8-719-110-04	DIODE RD7.5ES-B3	
*4-387-801-01	HOLDER, LED; D1401			IC			
D1402	8-719-101-08	DIODE SR108D		IC201	8-759-013-17	IC TDA6200	
*4-387-801-01	HOLDER, LED; D1402			TRANSISTOR			
D1403	8-719-101-08	DIODE SR108D		Q201	8-729-178-54	TRANSISTOR 2SC2785	
*4-387-801-01	HOLDER, LED; D1403			Q202	8-729-178-54	TRANSISTOR 2SC2785	
D1404	8-719-948-31	DIODE LD-201VR		RESISTOR			
IC				R201	1-249-441-11	CARBON 100K 5% 1/4W	
IC1401	8-741-138-70	IC 8X-1387		R202	1-249-425-11	CARBON 4.7K 5% 1/4W	
*****				R203	1-249-441-11	CARBON 100K 5% 1/4W	
*1-625-206-11	KS BOARD	*****		R204	1-249-435-11	CARBON 33K 5% 1/4W	
CAPACITOR				R205	1-249-435-11	CARBON 33K 5% 1/4W	
C202	1-124-902-00	ELECT 0.47MF 20% 50V		R206	1-249-423-11	CARBON 3.3K 5% 1/4W	
C203	1-124-477-11	ELECT 47MF 20% 16V		R207	1-249-423-11	CARBON 3.3K 5% 1/4W	
C204	1-124-902-00	ELECT 0.47MF 20% 50V		R208	1-249-431-11	CARBON 15K 5% 1/4W	
C205	1-124-927-11	ELECT 4.7MF 20% 50V		R209	1-249-433-11	CARBON 22K 5% 1/4W	
C206	1-124-477-11	ELECT 47MF 20% 16V		R210	1-249-431-11	CARBON 15K 5% 1/4W	
C207	1-124-927-11	ELECT 4.7MF 20% 50V		R211	1-249-441-11	CARBON 100K 5% 1/4W	
C213	1-124-908-11	ELECT 22MF 20% 50V		R212	1-249-433-11	CARBON 22K 5% 1/4W	
C214	1-110-188-81	MYLAR 0.0068MF 10% 400V		R213	1-249-431-11	CARBON 15K 5% 1/4W	
C217	1-110-188-81	MYLAR 0.0068MF 10% 400V		R214	1-249-417-11	CARBON 1K 5% 1/4W	
C218	1-110-182-81	MYLAR 0.022MF 10% 250V		R215	1-249-433-11	CARBON 22K 5% 1/4W	
C219	1-110-182-81	MYLAR 0.022MF 10% 250V		R216	1-249-433-11	CARBON 22K 5% 1/4W	
C220	1-108-620-11	MYLAR 0.0033MF 10% 100V		R217	1-249-431-11	CARBON 15K 5% 1/4W	
C221	1-108-620-11	MYLAR 0.0033MF 10% 100V		R218	1-249-417-11	CARBON 1K 5% 1/4W	
C222	1-110-182-81	MYLAR 0.022MF 10% 250V		R219	1-249-429-11	CARBON 10K 5% 1/4W	
C223	1-110-182-81	MYLAR 0.022MF 10% 250V		R220	1-249-425-11	CARBON 4.7K 5% 1/4W	
C224	1-110-190-81	MYLAR 0.01MF 10% 400V		R221	1-249-417-11	CARBON 1K 5% 1/4W	
C225	1-136-173-00	FILM 0.47MF 5% 50V		R222	1-249-417-11	CARBON 1K 5% 1/4W	
C226	1-136-173-00	FILM 0.47MF 5% 50V		R223	1-249-413-11	CARBON 470 5% 1/4W	
C227	1-110-182-81	MYLAR 0.022MF 10% 250V		R224	1-249-413-11	CARBON 470 5% 1/4W	
C228	1-110-184-81	MYLAR 0.033MF 10% 250V		R225	1-249-417-11	CARBON 1K 5% 1/4W	
C229	1-110-192-81	MYLAR 0.015MF 10% 400V		R226	1-249-417-11	CARBON 1K 5% 1/4W	
C230	1-110-192-81	MYLAR 0.015MF 10% 400V		R227	1-249-417-11	CARBON 1K 5% 1/4W	
C231	1-124-902-00	ELECT 0.47MF 20% 50V		R228	1-249-417-11	CARBON 1K 5% 1/4W	
C232	1-123-875-11	ELECT 10MF 20% 50V		R229	1-249-441-11	CARBON 100K 5% 1/4W	
C233	1-102-114-00	CERAMIC 470PF 10% 50V		R230	1-249-441-11	CARBON 100K 5% 1/4W	
C234	1-102-114-00	CERAMIC 470PF 10% 50V		R231	1-249-437-11	CARBON 47K 5% 1/4W	
C235	1-102-114-00	CERAMIC 470PF 10% 50V		R232	1-249-437-11	CARBON 47K 5% 1/4W	
C236	1-102-114-00	CERAMIC 470PF 10% 50V					
C237	1-124-902-00	ELECT 0.47MF 20% 50V					
C238	1-102-978-00	CERAMIC 220PF 5% 50V					
C239	1-126-103-11	ELECT 470MF 20% 16V					

The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

Ref.No.	Part No.	Description	Remark
MISCELLANEOUS *****			
	$\Delta$ 1-451-295-21	DEFLECTION YOKE (SY-153E)	
	1-452-032-00	MAGNET, DISK; 10MM $\phi$	
	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM $\phi$	
	1-452-277-00	MAGNET, BMC	
	1-503-642-21	SPEAKER	
	$\Delta$ 1-559-346-11	CORD, POWER (WITH CONNECTOR)	
L901	$\Delta$ 1-426-326-11	COIL, DEMAGNETIZATION	
T802	$\Delta$ 1-439-416-11	TRANSFORMER ASSY, FLYBACK	
V901	$\Delta$ 8-738-753-05	PICTURE TUBE (A51JUH60X)	
*****			
ACCESSORIES AND PACKING MATERIALS *****			
	Part No.	Description	Remark
	A-1470-844-A	COMMANDER ASSY (RM-673)	
	*4-377-015-01	BAG, PROTECTION	
	*4-387-852-01	CUSHION (UPPER) (ASSY)	
	*4-387-853-01	CUSHION (LOWER) (ASSY)	
	*4-387-854-01	INDIVIDUAL CARTON	
	4-482-524-81	MANUAL, INSTRUCTION	